



## SEQUENCE LISTING

<110> The Rockefeller Univeraity  
Friedman, Jeffrey M.  
Lee, Gwo-Hwa  
Proenca, Ricardo

<120> DB, THE RECEPTOR FOR LEPTIN,NUCLEIC ACIDS ENCODING THE RECEPTOR, AND USES THEREOF

C<sup>2</sup> <130> 600-1-162CP1

<140> 08/599,974

<141> 1996-02-14

<150> US 09/586,594

<151> 1996-01-16

<160> 97

<170> PatentIn version 3.1

<210> 1

<211> 2529

<212> DNA

<213> Mus musculus

Sub 1  
<400> 1

gggctcaggt cggcgtcgta ccagccgctg aagcggttct ccaggttcca ggcgctctcg 60  
ccatgccgga tcagcaccag cttgtagctc gtgccgaatt cggcacgagg ttgctttggg 120  
aatgagcaag gtcaaaactg ctctgcactc acagacaaca ctgaagggaa gacactggct 180  
tcagtagtga aggcttcagt ttttcgccag ctagggtgtaa actgggacat agagtgtctg 240  
atgaaagggg acttgacatt attcatctgt catatggagc cattacctaa gaacccttc 300  
aagaattatg actctaaggt ccatctttta tatgatctgc ctgaagtcac agatgattcg 360  
cctctgcccc cactgaaaga cagctttcag actgtccaat gcaactgcag tcttcgggga 420  
tgtgaatgtc atgtgccggt acccagagcc aaactcaact acgtcttctt gatgtatttg 480  
gaaatcacat ctgccggtgt gagttttcag tcacctctga tgtcactgca gcccatgctt 540  
gttgtgaaac ccgatccacc cttaggtttg catatggaag tcacagatga tggtaattta 600  
aagatttctt gggacagcca aacaatggca ccatttccgc ttcaatatca ggtgaaatat 660  
ttagagaatt ctacaattgt aagagaggct gctgaaattg tctcagctac atctctgtg 720  
gtagacagtg tgcttctctg atcttcatat gaggtccagg tgaggagcaa gagactggat 780  
ggttcaggag tctggagtga ctggagttca cctcaagtct ttaccacaca agatgttgtg 840  
tattttccac ccaaaattct gactagtgtt ggatcgaatg cttcttttca ttgcatctac 900

RECEIVED

DEC 04 2002

TECH CENTER 1600/2900

aaaaacgaaa accagattat ctcctcaaaa cagatagttt ggtggaggaa tctagctgag	960
aaaatccctg agatacagta cagcattgtg agtgaccgag ttagcaaagt taccttctcc	1020
aacctgaaaag ccaccagacc tcgaggggaag ttacctatg acgcagtgtg ctgctgcaat	1080
gagcaggcgt gccatcacgc ctatgctgaa ttatacgtga tcgatgtcaa tatcaatata	1140
tcatgtgaaa ctgacgggta cttaactaaa atgacttgca gatggtcacc cagcacaatc	1200
caatcactag tgggaagcac tgtgcagctg aggtatcaca ggcgcagcct gtattgtcct	1260
gatagtccat ctattcatcc tacgtctgag cccaaaaact gcgtcttaca gagagacggc	1320
ttttatgaat gtgttttcca gccaatcttt ctattatctg gctatacaat gtggatcagg	1380
atcaaccatt ctttaggttc acttgactcg ccaccaacgt gtgtccttcc tgactccgta	1440
gtaaaaccac tacctccatc taacgtaaaa gcagagatta ctgtaaacac tggattattg	1500
aaagtatctt gggaaaagcc agtctttccg gagaataacc ttcaattcca gattcgatat	1560
ggcttaagtg gaaaagaaat acaatggaag acacatgagg tattcgatgc aaagtcaaag	1620
tctgccagcc tgctggtgtc agacctctgt gcagtctatg tggccaggt tcgctgccgg	1680
cggttggatg gactaggata ttggagtaat tggagcagtc cagcctatac gcttgctatg	1740
gatgtaaaag ttcctatgag agggcctgaa ttttgagaa aaatggatgg ggacgttact	1800
aaaaaggaga gaaatgtcac cttgctttgg aagccccctga cgaaaaatga ctcactgtgt	1860
agtgtgagga ggtacgtggt gaagcatcgt actgccaca atgggacgtg gtcagaagat	1920
gtgggaaatc ggaccaatct cactttcctg tggacagaac cagcgcacac tgttacagtt	1980
ctggctgtca attcctcgg cgcttccctt gtgaatttta accttacctt ctcattggccc	2040
atgagtaaag tgagtgtgtg ggagtcactc agtgcttatc ccctgagcag cagctgtgtc	2100
atcctttcct ggacactgtc acctgatgat tatagctgtg tatatctggt tattgaatgg	2160
aagatcctta atgaagatga tggaatgaag tggcttagaa ttccctcgaa tgttaaaaag	2220
ttttatatcc acgataattt tattcccatc gagaaatc agtttagtct ttaccagta	2280
tttatggaag gagttgaaa accaaagata attaatggtt tcaccaaaga tgctatcgac	2340
aagcagcaga atgacgcagg gctgtatgtc attgtacca taattatttc ctcttggtgc	2400
ctactgctcg gaacactgtt aatttcacac cagagaatga aaaagttgtt ttgggacgat	2460
gttccaaacc ccaagaattg ttcctgggca caaggactga atttccaaaa gagaacggac	2520
actctttga	2529

<210> 2  
<211> 842  
<212> PRT  
<213> Mus musculus  
  
<220>  
<221> MISC\_FEATURE  
<222> (29)..(29)  
<223> X can be any amino acid

<400> 2

Gly Leu Arg Ser Ala Ser Tyr Gln Pro Leu Lys Arg Phe Ser Arg Phe  
1 5 10 15

Gln Ala Leu Ser Pro Cys Arg Ile Ser Thr Ser Leu Xaa Leu Val Pro  
20 25 30

Asn Ser Ala Arg Gly Cys Phe Gly Asn Glu Gln Gly Gln Asn Cys Ser  
35 40 45

Ala Leu Thr Asp Asn Thr Glu Gly Lys Thr Leu Ala Ser Val Val Lys  
50 55 60

Ala Ser Val Phe Arg Gln Leu Gly Val Asn Trp Asp Ile Glu Cys Trp  
65 70 75 80

Met Lys Gly Asp Leu Thr Leu Phe Ile Cys His Met Glu Pro Leu Pro  
85 90 95

Lys Asn Pro Phe Lys Asn Tyr Asp Ser Lys Val His Leu Leu Tyr Asp  
100 105 110

Leu Pro Glu Val Ile Asp Asp Ser Pro Leu Pro Pro Leu Lys Asp Ser  
115 120 125

Phe Gln Thr Val Gln Cys Asn Cys Ser Leu Arg Gly Cys Glu Cys His  
130 135 140

Val Pro Val Pro Arg Ala Lys Leu Asn Tyr Ala Leu Leu Met Tyr Leu  
145 150 155 160

Glu Ile Thr Ser Ala Gly Val Ser Phe Gln Ser Pro Leu Met Ser Leu  
165 170 175

Gln Pro Met Leu Val Val Lys Pro Asp Pro Pro Leu Gly Leu His Met  
180 185 190

Glu Val Thr Asp Asp Gly Asn Leu Lys Ile Ser Trp Asp Ser Gln Thr  
195 200 205

Met Ala Pro Phe Pro Leu Gln Tyr Gln Val Lys Tyr Leu Glu Asn Ser  
210 215 220

Thr Ile Val Arg Glu Ala Ala Glu Ile Val Ser Ala Thr Ser Leu Leu  
225 230 235 240

Val Asp Ser Val Leu Pro Gly Ser Ser Tyr Glu Val Gln Val Arg Ser  
245 250 255

Lys Arg Leu Asp Gly Ser Gly Val Trp Ser Asp Trp Ser Ser Pro Gln  
260 265 270

Val Phe Thr Thr Gln Asp Val Val Tyr Phe Pro Pro Lys Ile Leu Thr  
275 280 285

Ser Val Gly Ser Asn Ala Ser Phe His Cys Ile Tyr Lys Asn Glu Asn  
290 295 300

Gln Ile Ile Ser Ser Lys Gln Ile Val Trp Trp Arg Asn Leu Ala Glu  
305 310 315 320

Lys Ile Pro Glu Ile Gln Tyr Ser Ile Val Ser Asp Arg Val Ser Lys  
325 330 335

Val Thr Phe Ser Asn Leu Lys Ala Thr Arg Pro Arg Gly Lys Phe Thr  
340 345 350

Tyr Asp Ala Val Tyr Cys Cys Asn Glu Gln Ala Cys His His Arg Tyr  
355 360 365

Ala Glu Leu Tyr Val Ile Asp Val Asn Ile Asn Ile Ser Cys Glu Thr  
370 375 380

Asp Gly Tyr Leu Thr Lys Met Thr Cys Arg Trp Ser Pro Ser Thr Ile  
385 390 395 400

Gln Ser Leu Val Gly Ser Thr Val Gln Leu Arg Tyr His Arg Arg Ser  
405 410 415

Leu Tyr Cys Pro Asp Ser Pro Ser Ile His Pro Thr Ser Glu Pro Lys  
420 425 430

Asn Cys Val Leu Gln Arg Asp Gly Phe Tyr Glu Cys Val Phe Gln Pro  
435 440 445

Ile Phe Leu Leu Ser Gly Tyr Thr Met Trp Ile Arg Ile Asn His Ser  
450 455 460

Leu Gly Ser Leu Asp Ser Pro Pro Thr Cys Val Leu Pro Asp Ser Val  
465 470 475 480

Val Lys Pro Leu Pro Pro Ser Asn Val Lys Ala Glu Ile Thr Val Asn  
485 490 495

Thr Gly Leu Leu Lys Val Ser Trp Glu Lys Pro Val Phe Pro Glu Asn  
500 505 510

Asn Leu Gln Phe Gln Ile Arg Tyr Gly Leu Ser Gly Lys Glu Ile Gln  
515 520 525

Trp Lys Thr His Glu Val Phe Asp Ala Lys Ser Lys Ser Ala Ser Leu  
530 535 540

Leu Val Ser Asp Leu Cys Ala Val Tyr Val Val Gln Val Arg Cys Arg  
545 550 555 560

Arg Leu Asp Gly Leu Gly Tyr Trp Ser Asn Trp Ser Ser Pro Ala Tyr  
565 570 575

Thr Leu Val Met Asp Val Lys Val Pro Met Arg Gly Pro Glu Phe Trp  
580 585 590

Arg Lys Met Asp Gly Asp Val Thr Lys Lys Glu Arg Asn Val Thr Leu  
595 600 605

Leu Trp Lys Pro Leu Thr Lys Asn Asp Ser Leu Cys Ser Val Arg Arg  
610 615 620

Tyr Val Val Lys His Arg Thr Ala His Asn Gly Thr Trp Ser Glu Asp

625		630		635		640
Val Gly Asn Arg Thr Asn Leu Thr Phe Leu Trp Thr Glu Pro Ala His						
		645		650		655
Thr Val Thr Val Leu Ala Val Asn Ser Leu Gly Ala Ser Leu Val Asn						
		660		665		670
Phe Asn Leu Thr Phe Ser Trp Pro Met Ser Lys Val Ser Ala Val Glu						
		675		680		685
Ser Leu Ser Ala Tyr Pro Leu Ser Ser Ser Cys Val Ile Leu Ser Trp						
		690		695		700
Thr Leu Ser Pro Asp Asp Tyr Ser Leu Leu Tyr Leu Val Ile Glu Trp						
		705		710		715
Lys Ile Leu Asn Glu Asp Asp Gly Met Lys Trp Leu Arg Ile Pro Ser						
		725		730		735
Asn Val Lys Lys Phe Tyr Ile His Asp Asn Phe Ile Pro Ile Glu Lys						
		740		745		750
Tyr Gln Phe Ser Leu Tyr Pro Val Phe Met Glu Gly Val Gly Lys Pro						
		755		760		765
Lys Ile Ile Asn Gly Phe Thr Lys Asp Ala Ile Asp Lys Gln Gln Asn						
		770		775		780
Asp Ala Gly Leu Tyr Val Ile Val Pro Ile Ile Ile Ser Ser Cys Val						
		785		790		795
Leu Leu Leu Gly Thr Leu Leu Ile Ser His Gln Arg Met Lys Lys Leu						
		805		810		815
Phe Trp Asp Asp Val Pro Asn Pro Lys Asn Cys Ser Trp Ala Gln Gly						
		820		825		830
Leu Asn Phe Gln Lys Arg Thr Asp Thr Leu						
		835		840		

<210> 3  
 <211> 2848

<212> DNA  
<213> Mus musculus

<220>  
<221> misc\_feature  
<222> (44)..(44)  
<223> N can be A, C, T or G

<220>  
<221> misc\_feature  
<222> (67)..(67)  
<223> N can be A, C, T or G

<220>  
<221> misc\_feature  
<222> (234)..(234)  
<223> N can be A, C, T or G

<220>  
<221> misc\_feature  
<222> (483)..(483)  
<223> N can be A, C, T or G

<220>  
<221> misc\_feature  
<222> (527)..(527)  
<223> N can be A, C, T or G

<220>  
<221> misc\_feature  
<222> (564)..(564)  
<223> N can be A, C, T or G

<220>  
<221> misc\_feature  
<222> (1237)..(1237)  
<223> N can be A, C, T or G

<220>  
<221> misc\_feature  
<222> (1335)..(1335)  
<223> N can be A, C, T or G

<220>  
<221> misc\_feature  
<222> (2038)..(2038)  
<223> N can be A, C, T or G

<220>  
<221> misc\_feature  
<222> (2179)..(2179)  
<223> N can be A, C, T or G

<220>  
<221> misc\_feature  
<222> (2182)..(2182)  
<223> N can be A, C, T or G

<220>  
<221> misc\_feature  
<222> (2183)..(2183)  
<223> N can be A, C, T or G

<220>  
<221> misc\_feature  
<222> (2219)..(2219)  
<223> N can be A, C, T or G

<220>  
<221> misc\_feature  
<222> (2576)..(2576)  
<223> N can be A, C, T or G

<220>  
<221> misc\_feature  
<222> (2610)..(2610)  
<223> N can be A, C, T or G

<400> 3  
ctcattgaga gtgccaacgg gaaggcttaa ttaaccttgg gaantgagtc cgaagagtct 60  
ggaagtntgt aagatggaag atactataca agatacttca gagctgtaca ttcttccagg 120  
gatgtaggct agcagttatt tcattagtat atgtctattt tagaatggga agaattagga 180  
agatgaatgg agcctgtgtc ttctactact ctcccaggag gttccagaat agcnaaagtg 240  
tcagccagaa ttcttgaagt catagactgg agttagagat gaacataagc tcatgttaag 300  
cctgggttac ttcttatcat ccttaatttt gaaagctaag agggcctaac catcaagaac 360  
gtcctggagg aaagaatgtt tttaacgcca ttattcagtc aaagaaatta agacttgaga 420  
gaaatgctca tttcttctct catgatggct ccttacacct tacttctacc gtacgatcca 480  
tgnggcccta cccacgcagg atacatgcat ctatatgaga gtgtctnccc cttctaactc 540  
agagactctt gttctagtct gtgntataaa attcagcttg tggaagcttt ctgagggggt 600



ggcagcattc	aattttacct	gcaataggta	aaggtaatct	tttgggaagt	gaagagtgtt	660
attagacatt	tcagaaagaa	gaaacaggat	tggggctgct	atgtgttcta	cacaggaatc	720
ttccataaca	cagaataatt	tatgtagata	gagacaagat	ggaaatgccc	agggccccaa	780
aatagccgct	gttatttggt	aaccttcaag	gttttctggt	tgtttatctg	tttcttgccg	840
aggatcatct	tccaagcaca	tcctggggga	acagtggcag	agtcactcga	gttcatgaaa	900
ctatggtgac	atctgagctt	ccttggttct	tcacagaaca	taagcagttc	ctttgcttgc	960
ttgttagatg	agaaaacttc	cttgtcagtc	tgtctctacg	actagaatgg	aaagccttac	1020
tacttccat	gtattcttaa	tatttcaa	gtcctaatta	tgtttggctt	ctctgtcttt	1080
aagggattta	gtctctggat	ttgaagaa	aaataaataa	ataaaggaaa	actaattttc	1140
tcgtgccgga	tgactgctag	ctgagctcag	gcctactgca	ttctacattt	cgactctctc	1200
cctcttcccc	agtgttttag	cactggactg	ggcagtnctt	ggcctgggtt	aactcctggt	1260
tcctgggtgg	aatgtataat	aagaactcca	tgagttctgg	tataaacact	gtgggtctgtg	1320
tgctaattaa	atctngtgtt	tcctacagcc	cctgacgaaa	aatgactcac	tgtgtagtgt	1380
gaggaggtac	gtggtgaagc	atcgactg	ccacaatggg	acgtggtcag	aagatgtggg	1440
aaatcggacc	aatctcactt	tcctgtggac	agaaccagcg	cacactgtta	cagttctggc	1500
tgtcaattcc	ctcggcgctt	cccttgtgaa	ttttaacctt	accttctcat	ggcccatgag	1560
taaagtgagt	gctgtggagt	cactcagtc	ttatcccctg	agcagcagct	gtgtcatcct	1620
ttcctggaca	ctgtcacctg	atgattatag	tctgttatat	ctggttattg	aatggaagat	1680
ccttaatgaa	gatgatggaa	tgaagtggct	tagaattccc	tcgaatgtta	aaaagtttta	1740
tatccacgat	aattttattc	ccatcgagaa	atatcagttt	agtctttacc	cagtatttat	1800
ggaaggagtt	ggaaaaccaa	agataattaa	tggtttcacc	aaagatgcta	tcgacaagca	1860
gcagaatgac	gcagggctgt	atgtcattgt	accataatt	atttcctctt	gtgtcctact	1920
gctcggaa	ctgttaattt	cacaccagag	aatgaaaaag	ttgttttggg	acgatgttcc	1980
aaaccccaag	aattgttcct	gggcacaagg	actgaatttc	caaaagcctg	aaacattnga	2040
gcatcttttt	accaagcatg	cagaatcagt	gatatttgg	cctcttcttc	tggagcctga	2100
accattttca	gaagaaatca	gtgtcgatac	agcttgga	aaataaagatg	agatgggtccc	2160
agcagctatg	gtctccctnc	tnnggaccac	accagaccct	gaaagcagtt	ctatttgtnt	2220
tagtgaccag	tgtaacagtg	ctaacttctc	tgggtctcag	agcaccag	taacctgtga	2280
ggatgagtgt	cagagacaac	cctcagttaa	atatgcaact	ctggtcagca	acgataaact	2340

agtggaaact gatgaagagc aagggtttat ccatagtcct gtcagcaact gcatctccag 2400  
 taatcattcc cactgaggc agtctttctc tagcagctcc tgggagacag aggcccagac 2460  
 atttttcctt ttatcagacc agcaaccac catgatttca ccacaacttt cattctcggg 2520  
 gttggatgag cttttggaac tggaggggaag ttttctgaa gaaaatcaca gggagnagtc 2580  
 tgtctgttat ctaggagtca cctccgtcn cagaagagag agtggtgtgc ttttgactgg 2640  
 tgaggcagga atcctgtgca cattcccagc ccagtgtctg ttcagtgaca tcaggatcct 2700  
 ccaggagaga tgctcacact ttgtagaaaa taatttgagt ttagggacct ctggtgagaa 2760  
 ctttggtcct aacatgcccc aattccaaac ctgttcacag cacagtcaca agataatgga 2820  
 gaataagatg tgtgacttaa ctgtgtaa 2848

<210> 4  
 <211> 582  
 <212> PRT  
 <213> Mus musculus  
  
 <220>  
 <221> MISC\_FEATURE  
 <222> (79)..(79)  
 <223> X can be any amino acid

<400> 4

Leu Arg Asp Leu Val Ser Gly Phe Glu Glu Ile Asn Lys Ile Lys Glu  
 1 5 10 15

Asn Phe Ser Arg Ala Gly Leu Leu Ala Glu Leu Arg Pro Thr Ala Phe  
 20 25 30

Tyr Ile Ser Thr Leu Ser Leu Phe Pro Ser Ala Leu Ala Leu Asp Trp  
 35 40 45

Ala Val Pro Gly Leu Val Leu Leu Phe Pro Gly Gly Asn Val Glu Leu  
 50 55 60

His Glu Phe Trp Tyr Lys His Cys Gly Leu Cys Ala Asn Ile Xaa Cys  
 65 70 75 80

Phe Leu Gln Pro Leu Thr Lys Asn Asp Ser Leu Cys Ser Val Arg Arg  
 85 90 95

Tyr Val Val Lys His Arg Thr Ala His Asn Gly Thr Trp Ser Glu Asp  
 100 105 110

Val Gly Asn Arg Thr Asn Leu Thr Phe Leu Trp Thr Glu Pro Ala His  
 115 120 125

Thr Val Thr Val Leu Ala Val Asn Ser Leu Gly Ala Ser Leu Val Asn  
 130 135 140

Phe Asn Leu Thr Phe Ser Trp Pro Met Ser Lys Val Ser Ala Val Glu  
 145 150 155 160

Ser Leu Ser Ala Tyr Pro Leu Ser Ser Ser Cys Val Ile Leu Ser Trp  
 165 170 175

Thr Leu Ser Pro Asp Asp Tyr Ser Leu Leu Tyr Leu Val Ile Glu Trp  
 180 185 190

Lys Ile Leu Asn Glu Asp Asp Gly Met Lys Trp Leu Arg Ile Pro Ser  
 195 200 205

Asn Val Lys Lys Phe Tyr Ile His Asp Asn Phe Ile Pro Ile Glu Lys  
 210 215 220

Tyr Gln Phe Ser Leu Tyr Pro Val Phe Met Glu Gly Val Gly Lys Pro  
 225 230 235 240

Lys Ile Ile Asn Gly Phe Thr Lys Asp Ala Ile Asp Lys Gln Gln Asn  
 245 250 255

Asp Ala Gly Leu Tyr Val Ile Val Pro Ile Ile Ile Ser Ser Cys Val  
 260 265 270

Leu Leu Leu Gly Thr Leu Leu Ile Ser His Gln Arg Met Lys Lys Leu  
 275 280 285

Phe Trp Asp Asp Val Pro Asn Pro Lys Asn Cys Ser Trp Ala Gln Gly  
 290 295 300

Leu Asn Phe Gln Lys Pro Glu Thr Phe Glu Gln Leu Phe Thr Lys His  
 305 310 315 320

Ala Glu Ser Val Ile Phe Gly Pro Leu Leu Leu Glu Pro Glu Pro Ile

325							330							335								
Ser	Glu	Glu	Ile	Ser	Val	Asp	Thr	Ala	Trp	Lys	Asn	Lys	Asp	Glu	Met							
			340					345					350									
Val	Pro	Ala	Ala	Met	Val	Ser	Leu	Leu	Leu	Thr	Thr	Pro	Asp	Pro	Glu							
		355					360					365										
Ser	Ser	Ser	Ile	Cys	Ile	Ser	Asp	Gln	Cys	Asn	Ser	Ala	Asn	Phe	Ser							
	370					375					380											
Gly	Ser	Gln	Ser	Thr	Gln	Val	Thr	Cys	Glu	Asp	Glu	Cys	Gln	Arg	Gln							
385					390					395					400							
Pro	Ser	Val	Lys	Tyr	Ala	Thr	Leu	Val	Ser	Asn	Asp	Lys	Leu	Val	Glu							
				405					410					415								
Thr	Asp	Glu	Glu	Gln	Gly	Phe	Ile	His	Ser	Pro	Val	Ser	Asn	Cys	Ile							
			420					425					430									
Ser	Ser	Asn	His	Ser	Pro	Leu	Arg	Gln	Ser	Phe	Ser	Ser	Ser	Ser	Trp							
		435					440					445										
Glu	Thr	Glu	Ala	Gln	Thr	Phe	Phe	Leu	Leu	Ser	Asp	Gln	Gln	Pro	Thr							
	450					455					460											
Met	Ile	Ser	Pro	Gln	Leu	Ser	Phe	Ser	Gly	Leu	Asp	Glu	Leu	Leu	Glu							
465					470					475					480							
Leu	Glu	Gly	Ser	Phe	Pro	Glu	Glu	Asn	His	Arg	Glu	Lys	Ser	Val	Cys							
				485					490					495								
Tyr	Leu	Gly	Val	Thr	Ser	Val	Asn	Arg	Arg	Glu	Ser	Gly	Val	Leu	Leu							
			500					505					510									
Thr	Gly	Glu	Ala	Gly	Ile	Leu	Cys	Thr	Phe	Pro	Ala	Gln	Cys	Leu	Phe							
		515					520					525										
Ser	Asp	Ile	Arg	Ile	Leu	Gln	Glu	Arg	Cys	Ser	His	Phe	Val	Glu	Asn							
	530					535					540											
Asn	Leu	Ser	Leu	Gly	Thr	Ser	Gly	Glu	Asn	Phe	Val	Pro	Tyr	Met	Pro							
545					550					555					560							

Gln Phe Gln Thr Cys Ser Thr His Ser His Lys Ile Met Glu Asn Lys  
565 570 575

Met Cys Asp Leu Thr Val  
580

<210> 5  
<211> 961  
<212> DNA  
<213> Mus musculus

<220>  
<221> misc\_feature  
<222> (160)..(160)  
<223> N can be A, C, T or G

<220>  
<221> misc\_feature  
<222> (258)..(258)  
<223> N can be A, C, T or G

<400> 5  
tttaagggat ttagtctctg gatttgaaga aataaataaa taaataaagg aaaactaatt 60  
ttctcgtgcc ggatgactgc tagctgagct caggcctact gcattctaca tttcgactct 120  
ctccctcttc cccagtgcct tagcactgga ctgggcagtn cctggcctgg tctaactcct 180  
gtttcctggg gggaatgtat aataagaact ccatgagttc tgggtataaac actgtgggtct 240  
gtgtgctaata taaatctngt gtttcttaca gccctgacg aaaaatgact cactgtgtag 300  
tgtgaggagg tacgtggtga agcatcgtag tgcccacaat gggacgtggt cagaagatgt 360  
gggaaatcgg accaatctca ctttctgtg gacagaacca gcgcacactg ttacagttct 420  
ggctgtcaat tccctcggcg cttcccttgt gaattttaac cttaccttct catggcccat 480  
gagtaaagtg agtgctgtgg agtcactcag tgcttatecc ctgagcagca gctgtgtcat 540  
cctttcctgg aactgtcac ctgatgatta tagtctgtta tatctgggta ttgaatggaa 600  
gatccttaat gaagatgatg gaatgaagtg gcttagaatt ccctcgaatg ttaaaaagtt 660  
ttatatccac gataatttta ttcccatcga gaaatatcag tttagtcttt acccagtatt 720  
tatggaagga gttggaaaac caaagataat taatgggttc accaaagatg ctatcgacaa 780  
gcagcagaat gacgcagggc tgtatgtcat tgtaccata attatttcct cttgtgtcct 840  
actgctcgga aactgttaa tttcacacca gagaatgaaa aagttgtttt gggacgatgt 900

tcctaaacccc aagaattggt cctgggcaca aggactgaat ttccaaaagg tcaactgttta 960

a 961

<210> 6  
<211> 319  
<212> PRT  
<213> Mus musculus

<220>  
<221> MISC\_FEATURE  
<222> (14)..(14)  
<223> X can be any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (19)..(19)  
<223> X can be any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (25)..(25)  
<223> X can be any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (58)..(58)  
<223> X can be any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (67)..(67)  
<223> X can be any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (68)..(68)  
<223> X can be any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (84)..(84)  
<223> X can be any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (86)..(86)  
<223> X can be any amino acid

<400> 6

Leu Arg Asp Leu Val Ser Gly Phe Glu Glu Ile Asn Lys Xaa Ile Lys  
1 5 10 15

Glu Asn Xaa Phe Ser Arg Ala Gly Xaa Leu Leu Ala Glu Leu Arg Pro  
20 25 30

Thr Ala Phe Tyr Ile Ser Thr Leu Ser Leu Phe Pro Ser Ala Leu Ala  
35 40 45

Leu Asp Trp Ala Val Pro Gly Leu Val Xaa Leu Leu Phe Pro Gly Gly  
50 55 60

Asn Val Xaa Xaa Glu Leu His Glu Phe Trp Tyr Lys His Cys Gly Leu  
65 70 75 80

Cys Ala Asn Xaa Ile Xaa Cys Phe Leu Gln Pro Leu Thr Lys Asn Asp  
85 90 95

Ser Leu Cys Ser Val Arg Arg Tyr Val Val Lys His Arg Thr Ala His  
100 105 110

Asn Gly Thr Trp Ser Glu Asp Val Gly Asn Arg Thr Asn Leu Thr Phe  
115 120 125

Leu Trp Thr Glu Pro Ala His Thr Val Thr Val Leu Ala Val Asn Ser  
130 135 140

Leu Gly Ala Ser Leu Val Asn Phe Asn Leu Thr Phe Ser Trp Pro Met  
145 150 155 160

Ser Lys Val Ser Ala Val Glu Ser Leu Ser Ala Tyr Pro Leu Ser Ser  
165 170 175

Ser Cys Val Ile Leu Ser Trp Thr Leu Ser Pro Asp Asp Tyr Ser Leu  
180 185 190

Leu Tyr Leu Val Ile Glu Trp Lys Ile Leu Asn Glu Asp Asp Gly Met  
195 200 205

Lys Trp Leu Arg Ile Pro Ser Asn Val Lys Lys Phe Tyr Ile His Asp

210

215

220

Asn Phe Ile Pro Ile Glu Lys Tyr Gln Phe Ser Leu Tyr Pro Val Phe  
225 230 235 240

Met Glu Gly Val Gly Lys Pro Lys Ile Ile Asn Gly Phe Thr Lys Asp  
245 250 255

Ala Ile Asp Lys Gln Gln Asn Asp Ala Gly Leu Tyr Val Ile Val Pro  
260 265 270

Ile Ile Ile Ser Ser Cys Val Leu Leu Leu Gly Thr Leu Leu Ile Ser  
275 280 285

His Gln Arg Met Lys Lys Leu Phe Trp Asp Asp Val Pro Asn Pro Lys  
290 295 300

Asn Cys Ser Trp Ala Gln Gly Leu Asn Phe Gln Lys Val Thr Val  
305 310 315

<210> 7

<211> 2703

<212> DNA

<213> Mus musculus

<400> 7

atgatgtgtc agaaattcta tgtggttttg ttacactggg aatttcttta tgtgatagct	60
gcacttaacc tggcatatcc aatctctccc tggaaattta agttgttttg tggaccaccg	120
aacacaaccg atgactcctt tctctcacct gctggagccc caaacaatgc ctcggctttg	180
aagggggctt ctgaagcaat tgttgaagct aaatttaatt caagtggat ctacgttcct	240
gagttatcca aaacagtctt ccaactgttg tttgggaatg agcaaggtca aaactgctct	300
gcactcacag acaacactga agggaagaca ctggcttcag tagtgaaggc ttcagttttt	360
cgccagctag gtgtaaaactg ggacatagag tgctggatga aaggggactt gacattattc	420
atctgtcata tggagccatt acctaagaac ccttcaaga attatgactc taaggtccat	480
cttttatatg atctgcctga agtcatagat gattcgcctc tgccccact gaaagacagc	540
tttcagactg tccaatgcaa ctgcagtctt cggggatgtg aatgtcatgt gccggtaccc	600
agagccaaac tcaactacgc tcttctgatg tatttggaat tcacatctgc cgggtgtgagt	660
tttcagtcac ctctgatgtc actgcagccc atgcttggtg tgaaccgga tccaccctta	720



ggtttgcata	tggaagtcac	agatgatggt	aatttaaaga	tttcttggga	cagccaaaca	780
atggcaccat	ttccgcttca	atattcaggtg	aaatatttag	agaattctac	aattgtaaga	840
gaggtctgctg	aaattgtctc	agctacatct	ctgctggtag	acagtgtgct	tcctggatct	900
tcatatgagg	tccaggtgag	gagcaagaga	ctggatgggt	caggagtctg	gagtgcactgg	960
agttcacctc	aagtctttac	cacacaagat	gttgtgtatt	ttccacccaa	aattctgact	1020
agtgttgat	cgaatgcttc	ttttcatggc	atctacaaaa	acgaaaacca	gattatctcc	1080
tcaaaacaga	tagtttggtg	gaggaatcta	gctgagaaaa	tccttgagat	acagtacagc	1140
attgtgagtg	accgagttag	caaagttacc	ttctccaacc	tgaaagccac	cagacctga	1200
gggaagtta	cctatgacgc	agtgtactgc	tgcaatgagc	aggcgtgcca	tcaccgctat	1260
gctgaattat	acgtgatcga	tgtcaatata	aatatatcat	gtgaaactga	cgggtactta	1320
actaaaatga	cttgacagtg	gtcaccacgc	acaatccaat	cactagtggg	aagcactgtg	1380
cagctgaggt	atcacaggcg	cagcctgtat	tgtcctgata	gtccatctat	tcatectacg	1440
tctgagccca	aaaactgcgt	cttacagaga	gacggctttt	atgaatgtgt	tttcagcca	1500
atctttctat	tatctggcta	tacaatgtgg	atcaggatca	accattcttt	aggttcactt	1560
gactcgccac	caacgtgtgt	ccttcttgac	tcgtagtaa	aaccactacc	tccatctaac	1620
gtaaaagcag	agattactgt	aaacactgga	ttattgaaag	tatcttggga	aaagccagtc	1680
tttccggaga	ataaccttca	attccagatt	cgatatggct	taagtggaaa	agaaatacaa	1740
tggaagacac	atgaggtatt	cgatgcaaag	tcaaagtctg	ccagcctgct	ggtgtcagac	1800
ctctgtgcag	tctatgtggt	ccaggttcgc	tgccggcggt	tggatggact	aggatattgg	1860
agtaattgga	gcagtccagc	ctatacgctt	gtcatggatg	taaaagttcc	tatgagaggg	1920
cctgaatttt	ggagaaaaat	ggatggggac	gttactaaaa	aggagagaaa	tgtcaccttg	1980
ctttggaagc	ccctgacgaa	aaatgactca	ctgtgtagtg	tgaggaggtg	cgtggtgaag	2040
catcgactg	cccacaatgg	gacgtgggtc	gaagatgtgg	gaaatcggac	caatctcact	2100
ttcctgtgga	cagaaccagc	gcacactggt	acagttctgg	ctgtcaattc	cctcggcgct	2160
tccttgtga	attttaacct	taccttctca	tggcccatga	gtaaagtgag	tgctgtggag	2220
tactcagtg	cttatccctt	gagcagcagc	tgtgtcatcc	tttcttgga	actgtcacct	2280
gatgattata	gtctgttata	tctgggttatt	gaatggaaga	tccttaatga	agatgatgga	2340
atgaagtggc	ttagaattcc	ctcgaatggt	aaaaagtttt	atatccacga	taattttatt	2400
cccatcgaga	aatatcagtt	tagtctttac	ccagtattta	tggaaggagt	tggaaaacca	2460

aagataatta atggtttcac caaagatgct atcgacaagc agcagaatga cgcagggctg 2520  
tatgtcattg tacccataat tatttcctct tgtgtcctac tgctcggaac actgttaatt 2580  
tcacaccaga gaatgaaaaa gttgttttgg gacgatgttc caaaccccaa gaattgttcc 2640  
tgggcacaag gactgaattt caaaaggat atatctttac atgaagtttt tattttcaga 2700  
tag 2703

<210> 8  
<211> 900  
<212> PRT  
<213> Mus musculus  
<400> 8

Met	Met	Cys	Gln	Lys	Phe	Tyr	Val	Val	Leu	Leu	His	Trp	Glu	Phe	Leu	1	5	10	15
Tyr	Val	Ile	Ala	Ala	Leu	Asn	Leu	Ala	Tyr	Pro	Ile	Ser	Pro	Trp	Lys	20	25	30	
Phe	Lys	Leu	Phe	Cys	Gly	Pro	Pro	Asn	Thr	Thr	Asp	Asp	Ser	Phe	Leu	35	40	45	
Ser	Pro	Ala	Gly	Ala	Pro	Asn	Asn	Ala	Ser	Ala	Leu	Lys	Gly	Ala	Ser	50	55	60	
Glu	Ala	Ile	Val	Glu	Ala	Lys	Phe	Asn	Ser	Ser	Gly	Ile	Tyr	Val	Pro	65	70	75	80
Glu	Leu	Ser	Lys	Thr	Val	Phe	His	Cys	Cys	Phe	Gly	Asn	Glu	Gln	Gly	85	90	95	
Gln	Asn	Cys	Ser	Ala	Leu	Thr	Asp	Asn	Thr	Glu	Gly	Lys	Thr	Leu	Ala	100	105	110	
Ser	Val	Val	Lys	Ala	Ser	Val	Phe	Arg	Gln	Leu	Gly	Val	Asn	Trp	Asp	115	120	125	
Ile	Glu	Cys	Trp	Met	Lys	Gly	Asp	Leu	Thr	Leu	Phe	Ile	Cys	His	Met	130	135	140	
Glu	Pro	Leu	Pro	Lys	Asn	Pro	Phe	Lys	Asn	Tyr	Asp	Ser	Lys	Val	His	145	150	155	160

Leu Leu Tyr Asp Leu Pro Glu Val Ile Asp Asp Ser Pro Leu Pro Pro  
165 170 175

Leu Lys Asp Ser Phe Gln Thr Val Gln Cys Asn Cys Ser Leu Arg Gly  
180 185 190

Cys Glu Cys His Val Pro Val Pro Arg Ala Lys Leu Asn Tyr Ala Leu  
195 200 205

Leu Met Tyr Leu Glu Ile Thr Ser Ala Gly Val Ser Phe Gln Ser Pro  
210 215 220

Leu Met Ser Leu Gln Pro Met Leu Val Val Lys Pro Asp Pro Pro Leu  
225 230 235 240

Gly Leu His Met Glu Val Thr Asp Asp Gly Asn Leu Lys Ile Ser Trp  
245 250 255

Asp Ser Gln Thr Met Ala Pro Phe Pro Leu Gln Tyr Gln Val Lys Tyr  
260 265 270

Leu Glu Asn Ser Thr Ile Val Arg Glu Ala Ala Glu Ile Val Ser Ala  
275 280 285

Thr Ser Leu Leu Val Asp Ser Val Leu Pro Gly Ser Ser Tyr Glu Val  
290 295 300

Gln Val Arg Ser Lys Arg Leu Asp Gly Ser Gly Val Trp Ser Asp Trp  
305 310 315 320

Ser Ser Pro Gln Val Phe Thr Thr Gln Asp Val Val Tyr Phe Pro Pro  
325 330 335

Lys Ile Leu Thr Ser Val Gly Ser Asn Ala Ser Phe His Cys Ile Tyr  
340 345 350

Lys Asn Glu Asn Gln Ile Ile Ser Ser Lys Gln Ile Val Trp Trp Arg  
355 360 365

Asn Leu Ala Glu Lys Ile Pro Glu Ile Gln Tyr Ser Ile Val Ser Asp  
370 375 380

Arg Val Ser Lys Val Thr Phe Ser Asn Leu Lys Ala Thr Arg Pro Arg  
385 390 395 400

Gly Lys Phe Thr Tyr Asp Ala Val Tyr Cys Cys Asn Glu Gln Ala Cys  
405 410 415

His His Arg Tyr Ala Glu Leu Tyr Val Ile Asp Val Asn Ile Asn Ile  
420 425 430

Ser Cys Glu Thr Asp Gly Tyr Leu Thr Lys Met Thr Cys Arg Trp Ser  
435 440 445

Pro Ser Thr Ile Gln Ser Leu Val Gly Ser Thr Val Gln Leu Arg Tyr  
450 455 460

His Arg Arg Ser Leu Tyr Cys Pro Asp Ser Pro Ser Ile His Pro Thr  
465 470 475 480

Ser Glu Pro Lys Asn Cys Val Leu Gln Arg Asp Gly Phe Tyr Glu Cys  
485 490 495

Val Phe Gln Pro Ile Phe Leu Leu Ser Gly Tyr Thr Met Trp Ile Arg  
500 505 510

Ile Asn His Ser Leu Gly Ser Leu Asp Ser Pro Pro Thr Cys Val Leu  
515 520 525

Pro Asp Ser Val Val Lys Pro Leu Pro Pro Ser Asn Val Lys Ala Glu  
530 535 540

Ile Thr Val Asn Thr Gly Leu Leu Lys Val Ser Trp Glu Lys Pro Val  
545 550 555 560

Phe Pro Glu Asn Asn Leu Gln Phe Gln Ile Arg Tyr Gly Leu Ser Gly  
565 570 575

Lys Glu Ile Gln Trp Lys Thr His Glu Val Phe Asp Ala Lys Ser Lys  
580 585 590

Ser Ala Ser Leu Leu Val Ser Asp Leu Cys Ala Val Tyr Val Val Gln  
595 600 605

Val Arg Cys Arg Arg Leu Asp Gly Leu Gly Tyr Trp Ser Asn Trp Ser  
 610 615 620

Ser Pro Ala Tyr Thr Leu Val Met Asp Val Lys Val Pro Met Arg Gly  
 625 630 635 640

Pro Glu Phe Trp Arg Lys Met Asp Gly Asp Val Thr Lys Lys Glu Arg  
 645 650 655

Asn Val Thr Leu Leu Trp Lys Pro Leu Thr Lys Asn Asp Ser Leu Cys  
 660 665 670

Ser Val Arg Arg Tyr Val Val Lys His Arg Thr Ala His Asn Gly Thr  
 675 680 685

Trp Ser Glu Asp Val Gly Asn Arg Thr Asn Leu Thr Phe Leu Trp Thr  
 690 695 700

Glu Pro Ala His Thr Val Thr Val Leu Ala Val Asn Ser Leu Gly Ala  
 705 710 715 720

Ser Leu Val Asn Phe Asn Leu Thr Phe Ser Trp Pro Met Ser Lys Val  
 725 730 735

Ser Ala Val Glu Ser Leu Ser Ala Tyr Pro Leu Ser Ser Ser Cys Val  
 740 745 750

Ile Leu Ser Trp Thr Leu Ser Pro Asp Asp Tyr Ser Leu Leu Tyr Leu  
 755 760 765

Val Ile Glu Trp Lys Ile Leu Asn Glu Asp Asp Gly Met Lys Trp Leu  
 770 775 780

Arg Ile Pro Ser Asn Val Lys Lys Phe Tyr Ile His Asp Asn Phe Ile  
 785 790 795 800

Pro Ile Glu Lys Tyr Gln Phe Ser Leu Tyr Pro Val Phe Met Glu Gly  
 805 810 815

Val Gly Lys Pro Lys Ile Ile Asn Gly Phe Thr Lys Asp Ala Ile Asp  
 820 825 830

Lys Gln Gln Asn Asp Ala Gly Leu Tyr Val Ile Val Pro Ile Ile Ile

835

840

845

Ser Ser Cys Val Leu Leu Leu Gly Thr Leu Leu Ile Ser His Gln Arg  
850 855 860

Met Lys Lys Leu Phe Trp Asp Asp Val Pro Asn Pro Lys Asn Cys Ser  
865 870 875 880

Trp Ala Gln Gly Leu Asn Phe Gln Lys Asp Ile Ser Leu His Glu Val  
885 890 895

Phe Ile Phe Arg  
900

<210> 9

<211> 2461

<212> DNA

<213> Mus musculus

<400> 9

gaggaatcgt tctgcaaacc caggtgtaca cctctgaaga aagatgatgt gtcagaaatt	60
ctatgtgggt ttgttacct gggaatttct ttatgtgata gctgcactta acctggcata	120
tccaatctct ccctggaaat ttaagttgtt ttgtggacca ccgaacacaa ccgatgactc	180
ctttctctca cctgctggag ccccaaacaa tgcctcgggt ttgaaggggg cttctgaagc	240
aattgttgaa gctaaattta attcaagtgg tatctacgtt cctgagttat ccaaaacagt	300
cttccactgt tgctttggga atgagcaagg tcaaaactgc tctgcactca cagacaacac	360
tgaaggggaag aactggctt cagtagtgaa ggcttcagtt tttcgccagc taggtgtaaa	420
ctgggacata gaggctgga tgaaagggga cttgacatta ttcattctgtc atatggagcc	480
attacctaag aacccttca agaattatga ctctaagggt catcttttat atgatctgcc	540
tgaagtcata gatgattcgc ctctgcccc actgaaagac agctttcaga ctgtccaatg	600
caactgcagt cttcggggat gtgaatgtca tgtgcgggta ccagagcca aactcaacta	660
cgtctttctg atgtatttgg aaatcacatc tgccgggtgt agttttcagt cacctctgat	720
gtcactgcag cccatgcttg ttgtgaaacc cgatccaccc ttaggtttgc atatggaagt	780
cacagatgat ggtaatttaa agatttcttg ggacagccaa acaatggcac catttccgct	840
tcaatatcag gtgaaatatt tagagaattc tacaattgta agagaggctg ctgaaattgt	900
ctcagctaca tctctgctgg tagacagtgt gcttcttga tcttcatatg aggtccaggt	960

gaggagcaag agactggatg gttcaggagt ctggagtgac tggagttcac ctcaagtctt	1020
taccacacaa gatgttgtgt attttccacc caaaattctg actagtgttg gatcgaatgc	1080
ttcttttcat tgcacttaca aaaacgaaaa ccagattatc tcctcaaaac agatagtttg	1140
gtggaggaat ctagctgaga aaatccctga gatacagtac agcattgtga gtgaccgagt	1200
tagcaaagtt accttctcca acctgaaagc caccagacct cgagggaagt ttacctatga	1260
cgcagtgtac tgctgcaatg agcaggcgtg ccatcaccgc tatgctgaat tatacgtgat	1320
cgatgtcaat atcaatatat catgtgaaac tgacgggtac ttaactaaaa tgacttgcag	1380
atggtcaccc agcacaatcc aatcactagt gggaagcact gtgcagctga ggtatcacag	1440
gcgcagcctg tattgtcctg atagtccatc tattcatcct acgtctgagc caaaaaactg	1500
cgtcttacag agagacggct tttatgaatg tgttttccag ccaatctttc tattatctgg	1560
ctatacaatg tggatcagga tcaaccattc tttaggttca cttgactcgc caccaacgtg	1620
tgctcttctt gactccgtag taaaaccact acctccatct aacgtaaaag cagagattac	1680
tgtaaacact ggattattga aagtatcttg ggaaaagcca gtctttccgg agaataacct	1740
tcaattccag attcgatatg gcttaagtgg aaaagaaata caatggaaga cacatgaggt	1800
attcgatgca aagtcaaagt ctgccagcct gctgggtgtca gacctctgtg cagtctatgt	1860
gggccagggt cgctgccggc ggttggatgg actaggatat tggagtaatt ggagcagtcc	1920
agcctatacg cttgtcatgg atgtaaaagt tcctatgaga gggcctgaat tttggagaaa	1980
aatggatggg gacgttacta aaaaggagag aaatgtcacc ttgctttgga agcccctgac	2040
gaaaaatgac tcaactgtgt gtgtgaggag gtacgtgggtg aagcatcgta ctgccacaa	2100
tgggacgtgg tcagaagatg tgggaaatcg gaccaatctc actttcctgt ggacagaacc	2160
agcgcacact gttacagttc tggctgtcaa ttccctcggc gcttcccttg tgaatttta	2220
ccttaccttc tcatggccca tgagtaaagt gagtgtctgt gagtcactca gtgcttatcc	2280
cctgagcagc agctgtgtca tcctttcctg gacactgtca cctgatgatt atagtctgtt	2340
atatctgggt attgaatgga agatccttaa tgaagatgat ggaatgaagt ggcttagaat	2400
tcctcgaat gttaaaaagt tttatatcca cggatgtgt actgtacttt tcatggatta	2460
g	2461

<210> 10  
 <211> 805  
 <212> PRT  
 <213> Mus musculus

<400> 10

Met Met Cys Gln Lys Phe Tyr Val Val Leu Leu His Trp Glu Phe Leu  
1 5 10 15

Tyr Val Ile Ala Ala Leu Asn Leu Ala Tyr Pro Ile Ser Pro Trp Lys  
20 25 30

Phe Lys Leu Phe Cys Gly Pro Pro Asn Thr Thr Asp Asp Ser Phe Leu  
35 40 45

Ser Pro Ala Gly Ala Pro Asn Asn Ala Ser Ala Leu Lys Gly Ala Ser  
50 55 60

Glu Ala Ile Val Glu Ala Lys Phe Asn Ser Ser Gly Ile Tyr Val Pro  
65 70 75 80

Glu Leu Ser Lys Thr Val Phe His Cys Cys Phe Gly Asn Glu Gln Gly  
85 90 95

Gln Asn Cys Ser Ala Leu Thr Asp Asn Thr Glu Gly Lys Thr Leu Ala  
100 105 110

Ser Val Val Lys Ala Ser Val Phe Arg Gln Leu Gly Val Asn Trp Asp  
115 120 125

Ile Glu Cys Trp Met Lys Gly Asp Leu Thr Leu Phe Ile Cys His Met  
130 135 140

Glu Pro Leu Pro Lys Asn Pro Phe Lys Asn Tyr Asp Ser Lys Val His  
145 150 155 160

Leu Leu Tyr Asp Leu Pro Glu Val Ile Asp Asp Ser Pro Leu Pro Pro  
165 170 175

Leu Lys Asp Ser Phe Gln Thr Val Gln Cys Asn Cys Ser Leu Arg Gly  
180 185 190

Cys Glu Cys His Val Pro Val Pro Arg Ala Lys Leu Asn Tyr Ala Leu  
195 200 205

Leu Met Tyr Leu Glu Ile Thr Ser Ala Gly Val Ser Phe Gln Ser Pro  
210 215 220



Leu Met Ser Leu Gln Pro Met Leu Val Val Lys Pro Asp Pro Pro Leu  
225 230 235 240

Gly Leu His Met Glu Val Thr Asp Asp Gly Asn Leu Lys Ile Ser Trp  
245 250 255

Asp Ser Gln Thr Met Ala Pro Phe Pro Leu Gln Tyr Gln Val Lys Tyr  
260 265 270

Leu Glu Asn Ser Thr Ile Val Arg Glu Ala Ala Glu Ile Val Ser Ala  
275 280 285

Thr Ser Leu Leu Val Asp Ser Val Leu Pro Gly Ser Ser Tyr Glu Val  
290 295 300

Gln Val Arg Ser Lys Arg Leu Asp Gly Ser Gly Val Trp Ser Asp Trp  
305 310 315 320

Ser Ser Pro Gln Val Phe Thr Thr Gln Asp Val Val Tyr Phe Pro Pro  
325 330 335

Lys Ile Leu Thr Ser Val Gly Ser Asn Ala Ser Phe His Cys Ile Tyr  
340 345 350

Lys Asn Glu Asn Gln Ile Ile Ser Ser Lys Gln Ile Val Trp Trp Arg  
355 360 365

Asn Leu Ala Glu Lys Ile Pro Glu Ile Gln Tyr Ser Ile Val Ser Asp  
370 375 380

Arg Val Ser Lys Val Thr Phe Ser Asn Leu Lys Ala Thr Arg Pro Arg  
385 390 395 400

Gly Lys Phe Thr Tyr Asp Ala Val Tyr Cys Cys Asn Glu Gln Ala Cys  
405 410 415

His His Arg Tyr Ala Glu Leu Tyr Val Ile Asp Val Asn Ile Asn Ile  
420 425 430

Ser Cys Glu Thr Asp Gly Tyr Leu Thr Lys Met Thr Cys Arg Trp Ser  
435 440 445

Pro Ser Thr Ile Gln Ser Leu Val Gly Ser Thr Val Gln Leu Arg Tyr  
450 455 460

His Arg Arg Ser Leu Tyr Cys Pro Asp Ser Pro Ser Ile His Pro Thr  
465 470 475 480

Ser Glu Pro Lys Asn Cys Val Leu Gln Arg Asp Gly Phe Tyr Glu Cys  
485 490 495

Val Phe Gln Pro Ile Phe Leu Leu Ser Gly Tyr Thr Met Trp Ile Arg  
500 505 510

Ile Asn His Ser Leu Gly Ser Leu Asp Ser Pro Pro Thr Cys Val Leu  
515 520 525

Pro Asp Ser Val Val Lys Pro Leu Pro Pro Ser Asn Val Lys Ala Glu  
530 535 540

Ile Thr Val Asn Thr Gly Leu Leu Lys Val Ser Trp Glu Lys Pro Val  
545 550 555 560

Phe Pro Glu Asn Asn Leu Gln Phe Gln Ile Arg Tyr Gly Leu Ser Gly  
565 570 575

Lys Glu Ile Gln Trp Lys Thr His Glu Val Phe Asp Ala Lys Ser Lys  
580 585 590

Ser Ala Ser Leu Leu Val Ser Asp Leu Cys Ala Val Tyr Val Val Gln  
595 600 605

Val Arg Cys Arg Arg Leu Asp Gly Leu Gly Tyr Trp Ser Asn Trp Ser  
610 615 620

Ser Pro Ala Tyr Thr Leu Val Met Asp Val Lys Val Pro Met Arg Gly  
625 630 635 640

Pro Glu Phe Trp Arg Lys Met Asp Gly Asp Val Thr Lys Lys Glu Arg  
645 650 655

Asn Val Thr Leu Leu Trp Lys Pro Leu Thr Lys Asn Asp Ser Leu Cys  
660 665 670

Ser Val Arg Arg Tyr Val Val Lys His Arg Thr Ala His Asn Gly Thr  
675 680 685

Trp Ser Glu Asp Val Gly Asn Arg Thr Asn Leu Thr Phe Leu Trp Thr  
690 695 700

Glu Pro Ala His Thr Val Thr Val Leu Ala Val Asn Ser Leu Gly Ala  
705 710 715 720

Ser Leu Val Asn Phe Asn Leu Thr Phe Ser Trp Pro Met Ser Lys Val  
725 730 735

Ser Ala Val Glu Ser Leu Ser Ala Tyr Pro Leu Ser Ser Ser Cys Val  
740 745 750

Ile Leu Ser Trp Thr Leu Ser Pro Asp Asp Tyr Ser Leu Leu Tyr Leu  
755 760 765

Val Ile Glu Trp Lys Ile Leu Asn Glu Asp Asp Gly Met Lys Trp Leu  
770 775 780

Arg Ile Pro Ser Asn Val Lys Lys Phe Tyr Ile His Gly Met Cys Thr  
785 790 795 800

Val Leu Phe Met Asp  
805

<210> 11  
<211> 9  
<212> PRT  
<213> Mus musculus

<400> 11

Asn Phe Gln Lys Arg Thr Asp Thr Leu  
1 5

<210> 12  
<211> 277  
<212> PRT  
<213> Mus musculus

<400> 12

Asn Phe Gln Lys Pro Glu Thr Phe Glu His Leu Phe Thr Lys His Ala  
1 5 10 15

Glu Ser Val Ile Phe Gly Pro Leu Leu Leu Glu Pro Glu Pro Ile Ser  
20 25 30

Glu Glu Ile Ser Val Asp Thr Ala Trp Lys Asn Lys Asp Glu Met Val  
35 40 45

Pro Ala Ala Met Val Ser Leu Leu Leu Thr Thr Pro Asp Pro Glu Ser  
50 55 60

Ser Ser Ile Cys Ile Ser Asp Gln Cys Asn Ser Ala Asn Phe Ser Gly  
65 70 75 80

Ser Gln Ser Thr Gln Val Thr Cys Glu Asp Glu Cys Gln Arg Gln Pro  
85 90 95

Ser Val Lys Tyr Ala Thr Leu Val Ser Asn Asp Lys Leu Val Glu Thr  
100 105 110

Asp Glu Glu Gln Gly Phe Ile His Ser Pro Val Ser Asn Cys Ile Ser  
115 120 125

Ser Asn His Ser Pro Leu Arg Gln Ser Phe Ser Ser Ser Ser Trp Glu  
130 135 140

Thr Glu Ala Gln Thr Phe Phe Leu Leu Ser Asp Gln Gln Pro Thr Met  
145 150 155 160

Ile Ser Pro Gln Leu Ser Phe Ser Gly Leu Asp Glu Leu Leu Glu Leu  
165 170 175

Glu Gly Ser Phe Pro Glu Glu Asn His Arg Glu Lys Ser Val Cys Tyr  
180 185 190

Leu Gly Val Thr Ser Val Asn Arg Arg Glu Ser Gly Val Leu Leu Thr  
195 200 205

Gly Glu Ala Gly Ile Leu Cys Thr Phe Pro Ala Gln Cys Leu Phe Ser  
210 215 220

Asp Ile Arg Ile Leu Gln Glu Arg Cys Ser His Phe Val Glu Asn Asn  
225 230 235 240

Leu Ser Leu Gly Thr Ser Gly Glu Asn Phe Val Pro Tyr Met Pro Gln  
245 250 255

Phe Gln Thr Cys Ser Thr His Ser His Lys Ile Met Glu Asn Lys Met  
260 265 270

Cys Asp Leu Thr Val  
275

<210> 13  
<211> 7  
<212> PRT  
<213> Mus musculus

<400> 13

Asn Phe Gln Lys Val Thr Val  
1 5

<210> 14  
<211> 15  
<212> PRT  
<213> Mus musculus

<400> 14

Asn Phe Gln Lys Asp Ile Ser Leu His Glu Val Phe Ile Phe Arg  
1 5 10 15

<210> 15  
<211> 13  
<212> PRT  
<213> Mus musculus

<400> 15

Phe Tyr Ile His Gly Met Cys Thr Val Leu Phe Met Asp  
1 5 10

<210> 16  
<211> 8  
<212> PRT  
<213> Mus musculus

<400> 16

Pro Gln Lys Arg Thr Asp Thr Leu  
1 5

<210> 17

<211> 6  
<212> PRT  
<213> Mus musculus

<400> 17

Pro Gln Lys Pro Glu Thr  
1 5

<210> 18  
<211> 12  
<212> DNA  
<213> Mus musculus

<400> 18  
gatggaggga aa

12

<210> 19  
<211> 12  
<212> DNA  
<213> Mus musculus

<400> 19  
gatggaggta aa

12

<210> 20  
<211> 20  
<212> DNA  
<213> Mus musculus

<400> 20  
atcttgggtt ctctgaagaa

20

<210> 21  
<211> 21  
<212> DNA  
<213> Mus musculus

<400> 21  
gagattgtca gtcacagcct c

21

<210> 22  
<211> 23  
<212> DNA  
<213> Mus musculus

<400> 22  
atctgaattg gaatcaaata cac

23

<210> 23  
<211> 22

<212> DNA	
<213> Mus musculus	
<400> 23	
aaatctgtta tccttctgaa ac	22
<210> 24	
<211> 23	
<212> DNA	
<213> Mus musculus	
<400> 24	
acactgttaa tttcacacca gag	23
<210> 25	
<211> 24	
<212> DNA	
<213> Mus musculus	
<400> 25	
agtcattcaa accattagtt tagg	24
<210> 26	
<211> 21	
<212> DNA	
<213> Mus musculus	
<400> 26	
tggataaacc cttgctcttc a	21
<210> 27	
<211> 22	
<212> DNA	
<213> Mus musculus	
<400> 27	
tgaacacaac aacataaagc cc	22
<210> 28	
<211> 18	
<212> DNA	
<213> Mus musculus	
<400> 28	
aggctccctc agggccac	18
<210> 29	
<211> 25	
<212> DNA	
<213> Mus musculus	

<400> 29  
gtgactgaat gaagatgtaa tatac 25

<210> 30  
<211> 23  
<212> DNA  
<213> Mus musculus

<400> 30  
tggtatatct gggtattgaa tgg 23

<210> 31  
<211> 27  
<212> DNA  
<213> Mus musculus

<400> 31  
cattaaatga tttattatca gaattgc 27

<210> 32  
<211> 14  
<212> PRT  
<213> Mus musculus

<400> 32  
Glu Pro Leu Pro Lys Asn Pro Phe Lys Asn Tyr Asp Ser Lys  
1 5 10

<210> 33  
<211> 20  
<212> PRT  
<213> Mus musculus

<400> 33  
His Arg Arg Ser Leu Tyr Cys Pro Asp Ser Pro Ser Ile His Pro Thr  
1 5 10 15

Ser Glu Pro Lys  
20

<210> 34  
<211> 19  
<212> PRT  
<213> Mus musculus

<400> 34  
Gln Arg Met Lys Lys Leu Phe Trp Asp Asp Val Pro Asn Pro Lys Asn  
1 5 10 15



Cys Ser Trp

<210> 35  
<211> 166  
<212> DNA  
<213> Mus musculus

<220>  
<221> misc\_feature  
<222> (5)..(5)  
<223> N can be A, C, T or G

<400> 35  
agggnaagcg ccgaggggaat tgacagccag aactgtaaca gtgtgcgctg gttctgtcca 60  
caggaaagtg agattgggtcc gatttcccac atcttctgac cacgtcccat tgtgggcagt 120  
acgatgcttc accacgtacc tcttcacact acacagtgag tcattt 166

<210> 36  
<211> 320  
<212> DNA  
<213> Mus musculus

<400> 36  
ggtgaagcat cgtactgcc acaatgggac gtggtcagaa gatgtgggaa atcggaccaa 60  
tctcactttc ctgtggacag aaccagcgca cactgttaca gttctggctg tcaattccct 120  
cggcgccttc cttgtgaatt ttaaccttac cttctcatgg cccatgagta aagtgagtgc 180  
tgtggagtca ctcaagtgtt atcccctgag cagcagctgt gtcacccctt cctggacact 240  
gtcacctgat gattatagtc tggtatatct gggtattgaa tggaagatcc ttaatgaaga 300  
tgatggaatg aagtggctta 320

<210> 37  
<211> 158  
<212> DNA  
<213> Mus musculus

<400> 37  
gattactgga gatgcagttg ctgacaggac tatggataaa cccttgctct tcatcagttt 60  
ccactagttt atcgttgctg accagagttg catatttaac tgagggttgt ctctgacact 120  
catcctcaca gggtacctgg gtgctctgag acccagag 158

<210> 38  
<211> 192  
<212> DNA  
<213> Mus musculus

<400> 38  
agagagatcc ctgaccctag ttagatctgt tttcaggctc tgtgttcatt tgatgttcag 60  
aagtcagcaa ggttctcata tgtcctgagt tagtaagatg tctcagggtt ccccatcag 120  
ctaacaacca ctttgacatg agaaggcaga aagttaaaga acactacttg gtgttttact 180  
taaagatacg ag 192

<210> 39  
<211> 168  
<212> DNA  
<213> Mus musculus

<220>  
<221> misc\_feature  
<222> (55)..(55)  
<223> N can be A, C, T or G

<220>  
<221> misc\_feature  
<222> (62)..(62)  
<223> N can be A, C, T or G

<220>  
<221> misc\_feature  
<222> (72)..(72)  
<223> N can be A, C, T or G

<220>  
<221> misc\_feature  
<222> (143)..(143)  
<223> N can be A, C, T or G

<400> 39  
agactgacaa ggaagttttc tcacttaaca agcaagcaaa ggaactgctt atgtntctgtg 60  
angaaccaag gnagctcaga tgtcaccata gtcacatga actcgagtga ctctgccact 120  
gttccccccag gatgtgcttg gangataatc ctgcgcaaga aacagata 168

<210> 40  
<211> 259  
<212> DNA  
<213> Mus musculus

<220>  
<221> misc\_feature  
<222> (83)..(83)  
<223> N can be A, C, T or G

<220>  
<221> misc\_feature  
<222> (101)..(101)  
<223> N can be A, C, T or G

<220>  
<221> misc\_feature  
<222> (181)..(181)  
<223> N can be A, C, T or G

<400> 40  
agaattatga ctctaaggtc catcttttat atgatctgcc tgaagtcata gatgattcgc 60  
ctctgcccc actgaaagac agntttcaga ctgtccaatg naactgcagt cttcggggat 120  
gtgaatgtca tgtgccagta cccagagcca aactcaacta cgctcttctg atgtatttgg 180  
naatcacatc tgccggtgtg agttttcagt cacctctgat gtcactgcag cccatgcttg 240  
ttgtgaaacc cgatccacc 259

<210> 41  
<211> 250  
<212> DNA  
<213> Mus musculus

<220>  
<221> misc\_feature  
<222> (193)..(193)  
<223> N can be A, C, T or G

<400> 41  
cttcaacaat tggttcagaa gcccccttca aagccgaggc attgtttggg gtcaccagcag 60  
gtgagagaaa ggagtcacgc gttgtgttcg gtggtccaca aaacaactta aatttccagg 120  
gagagattgg atatgccagg ttaagtgcag ctatcacata aagaaattcc cagtgttaaca 180  
aaaccacata gantttctaa cacatcatct ttcttcagag gtgtacacct ggatttgcag 240  
aacgattcct 250

<210> 42  
<211> 18  
<212> DNA  
<213> Mus musculus

<400> 42  
ccgaggggaat tgacagcc 18

<210> 43  
<211> 22  
<212> DNA  
<213> Mus musculus

<400> 43  
ctcactgtgt agtgtgagga gg 22

<210> 44  
<211> 19  
<212> DNA  
<213> Mus musculus

<400> 44  
tcctgtggac agaaccagc 19

<210> 45  
<211> 19  
<212> DNA  
<213> Mus musculus

<400> 45  
tgacacagct gctgctcag 19

<210> 46  
<211> 20  
<212> DNA  
<213> Mus musculus

<400> 46  
ggtctcagag caccagga 20

<210> 47  
<211> 22  
<212> DNA  
<213> Mus musculus

<400> 47  
agagagatcc ctgaccctag tt 22

<210> 48  
<211> 26  
<212> DNA  
<213> Mus musculus

<400> 48  
aactttctgc cttccttctc atgtca 26

<210> 49  
<211> 22  
<212> DNA  
<213> Mus musculus

<400> 49  
tttctcatct aacaagcaag ca

22

<210> 50  
<211> 20  
<212> DNA  
<213> Mus musculus

<400> 50  
atctgtttct tgcgcaggat

20

<210> 51  
<211> 18  
<212> DNA  
<213> Mus musculus

<400> 51  
cattgtttgg ggctccag

18

<210> 52  
<211> 20  
<212> DNA  
<213> Mus musculus

<400> 52  
aatcgttctg caaatccagg

20

<210> 53  
<211> 21  
<212> DNA  
<213> Mus musculus

<400> 53  
tgaagtcata gatgattcgc c

21

<210> 54  
<211> 20  
<212> DNA  
<213> Mus musculus

<400> 54  
gttcgtaccc gacgtcactg

20

<210> 55

<211> 894  
<212> PRT  
<213> Mus musculus

<400> 55

Met Met Cys Gln Lys Phe Tyr Val Val Leu Leu His Trp Glu Phe Leu  
1 5 10 15

Tyr Val Ile Ala Ala Leu Asn Leu Ala Tyr Pro Ile Ser Pro Trp Lys  
20 25 30

Phe Lys Leu Phe Cys Gly Pro Pro Asn Thr Thr Asp Asp Ser Phe Leu  
35 40 45

Ser Pro Ala Gly Ala Pro Asn Asn Ala Ser Ala Leu Lys Gly Ala Ser  
50 55 60

Glu Ala Ile Val Glu Ala Lys Phe Asn Ser Ser Gly Ile Tyr Val Pro  
65 70 75 80

Glu Leu Ser Lys Thr Val Phe His Cys Cys Phe Gly Asn Glu Gln Gly  
85 90 95

Gln Asn Cys Ser Ala Leu Thr Asp Asn Thr Glu Gly Lys Thr Leu Ala  
100 105 110

Ser Val Val Lys Ala Ser Val Phe Arg Gln Leu Gly Val Asn Trp Asp  
115 120 125

Ile Glu Cys Trp Met Lys Gly Asp Leu Thr Leu Phe Ile Cys His Met  
130 135 140

Glu Pro Leu Pro Lys Asn Pro Phe Lys Asn Tyr Asp Ser Lys Val His  
145 150 155 160

Leu Leu Tyr Asp Leu Pro Glu Val Ile Asp Asp Ser Pro Leu Pro Pro  
165 170 175

Leu Lys Asp Ser Phe Gln Thr Val Gln Cys Asn Cys Ser Leu Arg Gly  
180 185 190

Cys Glu Cys His Val Pro Val Pro Arg Ala Lys Leu Asn Tyr Ala Leu  
195 200 205

Leu Met Tyr Leu Glu Ile Thr Ser Ala Gly Val Ser Phe Gln Ser Pro  
210 215 220

Leu Met Ser Leu Gln Pro Met Leu Val Val Lys Pro Asp Pro Pro Leu  
225 230 235 240

Gly Leu His Met Glu Val Thr Asp Asp Gly Asn Leu Lys Ile Ser Trp  
245 250 255

Asp Ser Gln Thr Met Ala Pro Phe Pro Leu Gln Tyr Gln Val Lys Tyr  
260 265 270

Leu Glu Asn Ser Thr Ile Val Arg Glu Ala Ala Glu Ile Val Ser Ala  
275 280 285

Thr Ser Leu Leu Val Asp Ser Val Leu Pro Gly Ser Ser Tyr Glu Val  
290 295 300

Gln Val Arg Ser Lys Arg Leu Asp Gly Ser Gly Val Trp Ser Asp Trp  
305 310 315 320

Ser Ser Pro Gln Val Phe Thr Thr Gln Asp Val Val Tyr Phe Pro Pro  
325 330 335

Lys Ile Leu Thr Ser Val Gly Ser Asn Ala Ser Phe His Cys Ile Tyr  
340 345 350

Lys Asn Glu Asn Gln Ile Ile Ser Ser Lys Gln Ile Val Trp Trp Arg  
355 360 365

Asn Leu Ala Glu Lys Ile Pro Glu Ile Gln Tyr Ser Ile Val Ser Asp  
370 375 380

Arg Val Ser Lys Val Thr Phe Ser Asn Leu Lys Ala Thr Arg Pro Arg  
385 390 395 400

Gly Lys Phe Thr Tyr Asp Ala Val Tyr Cys Cys Asn Glu Gln Ala Cys  
405 410 415

His His Arg Tyr Ala Glu Leu Tyr Val Ile Asp Val Asn Ile Asn Ile  
420 425 430

Ser Cys Glu Thr Asp Gly Tyr Leu Thr Lys Met Thr Cys Arg Trp Ser  
435 440 445

Pro Ser Thr Ile Gln Ser Leu Val Gly Ser Thr Val Gln Leu Arg Tyr  
450 455 460

His Arg Arg Ser Leu Tyr Cys Pro Asp Ser Pro Ser Ile His Pro Thr  
465 470 475 480

Ser Glu Pro Lys Asn Cys Val Leu Gln Arg Asp Gly Phe Tyr Glu Cys  
485 490 495

Val Phe Gln Pro Ile Phe Leu Leu Ser Gly Tyr Thr Met Trp Ile Arg  
500 505 510

Ile Asn His Ser Leu Gly Ser Leu Asp Ser Pro Pro Thr Cys Val Leu  
515 520 525

Pro Asp Ser Val Val Lys Pro Leu Pro Pro Ser Asn Val Lys Ala Glu  
530 535 540

Ile Thr Val Asn Thr Gly Leu Leu Lys Val Ser Trp Glu Lys Pro Val  
545 550 555 560

Phe Pro Glu Asn Asn Leu Gln Phe Gln Ile Arg Tyr Gly Leu Ser Gly  
565 570 575

Lys Glu Ile Gln Trp Lys Thr His Glu Val Phe Asp Ala Lys Ser Lys  
580 585 590

Ser Ala Ser Leu Leu Val Ser Asp Leu Cys Ala Val Tyr Val Val Gln  
595 600 605

Val Arg Cys Arg Arg Leu Asp Gly Leu Gly Tyr Trp Ser Asn Trp Ser  
610 615 620

Ser Pro Ala Tyr Thr Leu Val Met Asp Val Lys Val Pro Met Arg Gly  
625 630 635 640

Pro Glu Phe Trp Arg Lys Met Asp Gly Asp Val Thr Lys Lys Glu Arg  
645 650 655

Asn Val Thr Leu Leu Trp Lys Pro Leu Thr Lys Asn Asp Ser Leu Cys



[illegible]

<210> 56  
<211> 1165  
<212> PRT  
<213> Homo sapiens

<400> 56

Met Ile Cys Gln Lys Phe Cys Val Val Leu Leu His Trp Glu Phe Ile  
1 5 10 15

Tyr Val Ile Thr Ala Phe Asn Leu Ser Tyr Pro Ile Thr Pro Trp Arg  
20 25 30

Phe Lys Leu Ser Cys Met Pro Pro Asn Ser Thr Tyr Asp Tyr Phe Leu  
35 40 45

Leu Pro Ala Gly Leu Ser Lys Asn Thr Ser Asn Ser Asn Gly His Tyr  
50 55 60

Glu Thr Ala Val Glu Pro Lys Phe Asn Ser Ser Gly Thr His Phe Ser  
65 70 75 80

Asn Leu Ser Lys Thr Thr Phe His Cys Cys Phe Arg Ser Glu Gln Asp  
85 90 95

Arg Asn Cys Ser Leu Cys Ala Asp Asn Ile Glu Gly Lys Thr Phe Val  
100 105 110

Ser Thr Val Asn Ser Leu Val Phe Gln Gln Ile Asp Ala Asn Trp Asn  
115 120 125

Ile Gln Cys Trp Leu Lys Gly Asp Leu Lys Leu Phe Ile Cys Tyr Val  
130 135 140

Glu Ser Leu Phe Lys Asn Leu Phe Arg Asn Tyr Asn Tyr Lys Val His  
145 150 155 160

Leu Leu Tyr Val Leu Pro Glu Val Leu Glu Asp Ser Pro Leu Val Pro  
165 170 175

Gln Lys Gly Ser Phe Gln Met Val His Cys Asn Cys Ser Val His Glu  
180 185 190

Cys Cys Glu Cys Leu Val Pro Val Pro Thr Ala Lys Leu Asn Asp Thr  
 195 200 205

Leu Leu Met Cys Leu Lys Ile Thr Ser Gly Gly Val Ile Phe Gln Ser  
 210 215 220

Pro Leu Met Ser Val Gln Pro Ile Asn Met Val Lys Pro Asp Pro Pro  
 225 230 235 240

Leu Gly Leu His Met Glu Ile Thr Asp Asp Gly Asn Leu Lys Ile Ser  
 245 250 255

Trp Ser Ser Pro Pro Leu Val Pro Phe Pro Leu Gln Tyr Gln Val Lys  
 260 265 270

Tyr Ser Glu Asn Ser Thr Thr Val Ile Arg Glu Ala Asp Lys Ile Val  
 275 280 285

Ser Ala Thr Ser Leu Leu Val Asp Ser Ile Leu Pro Gly Ser Ser Tyr  
 290 295 300

Glu Val Gln Val Arg Gly Lys Arg Leu Asp Gly Pro Gly Ile Trp Ser  
 305 310 315 320

Asp Trp Ser Thr Pro Arg Val Phe Thr Thr Gln Asp Val Ile Tyr Phe  
 325 330 335

Pro Pro Lys Ile Leu Thr Ser Val Gly Ser Asn Val Ser Phe His Cys  
 340 345 350

Ile Tyr Lys Lys Glu Asn Lys Ile Val Pro Ser Lys Glu Ile Val Trp  
 355 360 365

Trp Met Asn Leu Ala Glu Lys Ile Pro Gln Ser Gln Tyr Asp Val Val  
 370 375 380

Ser Asp His Val Ser Lys Val Thr Phe Phe Asn Leu Asn Glu Thr Lys  
 385 390 395 400

Pro Arg Gly Lys Phe Thr Tyr Asp Ala Val Tyr Cys Cys Asn Glu His  
 405 410 415

Glu Cys His His Arg Tyr Ala Glu Leu Tyr Val Ile Asp Val Asn Ile

				420				425						430			
Asn	Ile	Ser	Cys	Glu	Thr	Asp	Gly 440	Tyr	Leu	Thr	Lys	Met 445	Thr	Cys	Arg		
		435															
Trp	Ser	Thr	Ser	Thr	Ile	Gln	Ser 455	Leu	Ala	Glu	Ser 460	Thr	Leu	Gln	Leu		
	450																
Arg	Tyr	His	Arg	Ser	Ser	Leu	Tyr	Cys	Ser	Asp	Ile	Pro	Ser	Ile	His 480		
	465				470					475							
Pro	Ile	Ser	Glu	Pro	Lys	Asp	Cys	Tyr	Leu	Gln	Ser	Asp	Gly	Phe 495	Tyr		
				485					490								
Glu	Cys	Ile	Phe	Gln	Pro	Ile	Phe	Leu	Leu	Ser	Gly	Tyr	Thr	Met	Trp		
			500					505					510				
Ile	Arg	Ile	Asn	His	Ser	Leu	Gly	Ser	Leu	Asp	Ser	Pro	Pro	Thr	Cys		
		515					520					525					
Val	Leu	Pro	Asp	Ser	Val	Val	Lys	Pro	Leu	Pro	Pro	Ser	Ser	Val	Lys		
	530					535					540						
Ala	Glu	Ile	Thr	Ile	Asn	Ile	Gly	Leu	Leu	Lys	Ile	Ser	Trp	Glu	Lys 560		
	545				550					555							
Pro	Val	Phe	Pro	Glu	Asn	Asn	Leu	Gln	Phe	Gln	Ile	Arg	Tyr	Gly	Leu		
				565					570					575			
Ser	Gly	Lys	Glu	Val	Gln	Trp	Lys	Met	Tyr	Glu	Val	Tyr	Asp	Ala	Lys		
			580					585					590				
Ser	Lys	Ser	Val	Ser	Leu	Pro	Val	Pro	Asp	Leu	Cys	Ala	Val	Tyr	Ala		
		595					600					605					
Val	Gln	Val	Arg	Cys	Lys	Arg	Leu	Asp	Gly	Leu	Gly	Tyr	Trp	Ser	Asn		
	610					615					620						
Trp	Ser	Asn	Pro	Ala	Tyr	Thr	Val	Val	Met	Asp	Ile	Lys	Val	Pro	Met 640		
	625				630					635							
Arg	Gly	Pro	Glu	Phe	Trp	Arg	Ile	Ile	Asn	Gly	Asp	Thr	Met	Lys	Lys		
				645					650					655			

Glu Lys Asn Val Thr Leu Leu Trp Lys Pro Leu Met Lys Asn Asp Ser  
660 665 670

Leu Cys Ser Val Gln Arg Tyr Val Ile Asn His His Thr Ser Cys Asn  
675 680 685

Gly Thr Trp Ser Glu Asp Val Gly Asn His Thr Lys Phe Thr Phe Leu  
690 695 700

Trp Thr Glu Gln Ala His Thr Val Thr Val Leu Ala Ile Asn Ser Ile  
705 710 715 720

Gly Ala Ser Val Ala Asn Phe Asn Leu Thr Phe Ser Trp Pro Met Ser  
725 730 735

Lys Val Asn Ile Val Gln Ser Leu Ser Ala Tyr Pro Leu Asn Ser Ser  
740 745 750

Cys Val Ile Val Ser Trp Ile Leu Ser Pro Ser Asp Tyr Lys Leu Met  
755 760 765

Tyr Phe Ile Ile Glu Trp Lys Asn Leu Asn Glu Asp Gly Glu Ile Lys  
770 775 780

Trp Leu Arg Ile Ser Ser Ser Val Lys Lys Tyr Tyr Ile His Asp His  
785 790 795 800

Phe Ile Pro Ile Glu Lys Tyr Gln Phe Ser Leu Tyr Pro Ile Phe Met  
805 810 815

Glu Gly Val Gly Lys Pro Lys Ile Ile Asn Ser Phe Thr Gln Asp Asp  
820 825 830

Ile Glu Lys His Gln Ser Asp Ala Gly Leu Tyr Val Ile Val Pro Val  
835 840 845

Ile Ile Ser Ser Ser Ile Leu Leu Leu Gly Thr Leu Leu Ile Ser His  
850 855 860

Gln Arg Met Lys Lys Leu Phe Trp Glu Asp Val Pro Asn Pro Lys Asn  
865 870 875 880

Cys Ser Trp Ala Gln Gly Leu Asn Phe Gln Lys Pro Glu Thr Phe Glu  
885 890 895

His Leu Phe Ile Lys His Thr Ala Ser Val Thr Cys Gly Pro Leu Leu  
900 905 910

Leu Glu Pro Glu Thr Ile Ser Glu Asp Ile Ser Val Asp Thr Ser Trp  
915 920 925

Lys Asn Lys Asp Glu Met Met Pro Thr Thr Val Val Ser Leu Leu Ser  
930 935 940

Thr Thr Asp Leu Glu Lys Gly Ser Val Cys Ile Ser Asp Gln Phe Asn  
945 950 955 960

Ser Val Asn Phe Ser Glu Ala Glu Gly Thr Glu Val Thr Tyr Glu Ala  
965 970 975

Glu Ser Gln Arg Gln Pro Phe Val Lys Tyr Ala Thr Leu Ile Ser Asn  
980 985 990

Ser Lys Pro Ser Glu Thr Gly Glu Glu Gln Gly Leu Ile Asn Ser Ser  
995 1000 1005

Val Thr Lys Cys Phe Ser Ser Lys Asn Ser Pro Leu Lys Asp Ser  
1010 1015 1020

Phe Ser Asn Ser Ser Trp Glu Ile Glu Ala Gln Ala Phe Phe Ile  
1025 1030 1035

Leu Ser Asp Gln His Pro Asn Ile Ile Ser Pro His Leu Thr Phe  
1040 1045 1050

Ser Glu Gly Leu Asp Glu Leu Leu Lys Leu Glu Gly Asn Phe Pro  
1055 1060 1065

Glu Glu Asn Asn Asp Lys Lys Ser Ile Tyr Tyr Leu Gly Val Thr  
1070 1075 1080

Ser Ile Lys Lys Arg Glu Ser Gly Val Leu Leu Thr Asp Lys Ser  
1085 1090 1095

Arg Val Ser Cys Pro Phe Pro Ala Pro Cys Leu Phe Thr Asp Ile  
1100 1105 1110

Arg Val Leu Gln Asp Ser Cys Ser His Phe Val Glu Asn Asn Ile  
1115 1120 1125

Asn Leu Gly Thr Ser Ser Lys Lys Thr Phe Ala Ser Tyr Met Pro  
1130 1135 1140

Gln Phe Gln Thr Cys Ser Thr Gln Thr His Lys Ile Met Glu Asn  
1145 1150 1155

Lys Met Cys Asp Leu Thr Val  
1160 1165

<210> 57

<211> 1110

<212> PRT

<213> Mus musculus

<220>

<221> MISC\_FEATURE

<222> (29)..(29)

<223> X can be any amino acid

<400> 57

Gly Leu Arg Ser Ala Ser Tyr Gln Pro Leu Lys Arg Phe Ser Arg Phe  
1 5 10 15

Gln Ala Leu Ser Pro Cys Arg Ile Ser Thr Ser Leu Xaa Leu Val Pro  
20 25 30

Asn Ser Ala Arg Gly Cys Phe Gly Asn Glu Gln Gly Gln Asn Cys Ser  
35 40 45

Ala Leu Thr Asp Asn Thr Glu Gly Lys Thr Leu Ala Ser Val Val Lys  
50 55 60

Ala Ser Val Phe Arg Gln Leu Gly Val Asn Trp Asp Ile Glu Cys Trp  
65 70 75 80

Met Lys Gly Asp Leu Thr Leu Phe Ile Cys His Met Glu Pro Leu Pro  
85 90 95

Lys Asn Pro Phe Lys Asn Tyr Asp Ser Lys Val His Leu Leu Tyr Asp  
 100 105 110

Leu Pro Glu Val Ile Asp Asp Ser Pro Leu Pro Pro Leu Lys Asp Ser  
 115 120 125

Phe Gln Thr Val Gln Cys Asn Cys Ser Leu Arg Gly Cys Glu Cys His  
 130 135 140

Val Pro Val Pro Arg Ala Lys Leu Asn Tyr Ala Leu Leu Met Tyr Leu  
 145 150 155 160

Glu Ile Thr Ser Ala Gly Val Ser Phe Gln Ser Pro Leu Met Ser Leu  
 165 170 175

Gln Pro Met Leu Val Val Lys Pro Asp Pro Pro Leu Gly Leu His Met  
 180 185 190

Glu Val Thr Asp Asp Gly Asn Leu Lys Ile Ser Trp Asp Ser Gln Thr  
 195 200 205

Met Ala Pro Phe Pro Leu Gln Tyr Gln Val Lys Tyr Leu Glu Asn Ser  
 210 215 220

Thr Ile Val Arg Glu Ala Ala Glu Ile Val Ser Ala Thr Ser Leu Leu  
 225 230 235 240

Val Asp Ser Val Leu Pro Gly Ser Ser Tyr Glu Val Gln Val Arg Ser  
 245 250 255

Lys Arg Leu Asp Gly Ser Gly Val Trp Ser Asp Trp Ser Ser Pro Gln  
 260 265 270

Val Phe Thr Thr Gln Asp Val Val Tyr Phe Pro Pro Lys Ile Leu Thr  
 275 280 285

Ser Val Gly Ser Asn Ala Ser Phe His Cys Ile Tyr Lys Asn Glu Asn  
 290 295 300

Gln Ile Ile Ser Ser Lys Gln Ile Val Trp Trp Arg Asn Leu Ala Glu  
 305 310 315 320

Lys Ile Pro Glu Ile Gln Tyr Ser Ile Val Ser Asp Arg Val Ser Lys



	325		330		335
Val Thr Phe Ser Asn Leu Lys Ala Thr Arg Pro Arg Gly Lys Phe Thr	340		345		350
Tyr Asp Ala Val Tyr Cys Cys Asn Glu Gln Ala Cys His His Arg Tyr	355		360		365
Ala Glu Leu Tyr Val Ile Asp Val Asn Ile Asn Ile Ser Cys Glu Thr	370		375		380
Asp Gly Tyr Leu Thr Lys Met Thr Cys Arg Trp Ser Pro Ser Thr Ile	385		390		395
Gln Ser Leu Val Gly Ser Thr Val Gln Leu Arg Tyr His Arg Arg Ser	405		410		415
Leu Tyr Cys Pro Asp Ser Pro Ser Ile His Pro Thr Ser Glu Pro Lys	420		425		430
Asn Cys Val Leu Gln Arg Asp Gly Phe Tyr Glu Cys Val Phe Gln Pro	435		440		445
Ile Phe Leu Leu Ser Gly Tyr Thr Met Trp Ile Arg Ile Asn His Ser	450		455		460
Leu Gly Ser Leu Asp Ser Pro Pro Thr Cys Val Leu Pro Asp Ser Val	465		470		475
Val Lys Pro Leu Pro Pro Ser Asn Val Lys Ala Glu Ile Thr Val Asn	485		490		495
Thr Gly Leu Leu Lys Val Ser Trp Glu Lys Pro Val Phe Pro Glu Asn	500		505		510
Asn Leu Gln Phe Gln Ile Arg Tyr Gly Leu Ser Gly Lys Glu Ile Gln	515		520		525
Trp Lys Thr His Glu Val Phe Asp Ala Lys Ser Lys Ser Ala Ser Leu	530		535		540
Leu Val Ser Asp Leu Cys Ala Val Tyr Val Val Gln Val Arg Cys Arg	545		550		555
					560

Arg	Leu	Asp	Gly	Leu	Gly	Tyr	Trp	Ser	Asn	Trp	Ser	Ser	Pro	Ala	Tyr		
				565					570						575		
Thr	Leu	Val	Met	Asp	Val	Lys	Val	Pro	Met	Arg	Gly	Pro	Glu	Phe	Trp		
			580					585					590				
Arg	Lys	Met	Asp	Gly	Asp	Val	Thr	Lys	Lys	Glu	Arg	Asn	Val	Thr	Leu		
		595					600					605					
Leu	Trp	Lys	Pro	Leu	Thr	Lys	Asn	Asp	Ser	Leu	Cys	Ser	Val	Arg	Arg		
	610					615					620						
Tyr	Val	Val	Lys	His	Arg	Thr	Ala	His	Asn	Gly	Thr	Trp	Ser	Glu	Asp		
625					630					635					640		
Val	Gly	Asn	Arg	Thr	Asn	Leu	Thr	Phe	Leu	Trp	Thr	Glu	Pro	Ala	His		
				645					650					655			
Thr	Val	Thr	Val	Leu	Ala	Val	Asn	Ser	Leu	Gly	Ala	Ser	Leu	Val	Asn		
			660					665					670				
Phe	Asn	Leu	Thr	Phe	Ser	Trp	Pro	Met	Ser	Lys	Val	Ser	Ala	Val	Glu		
		675					680					685					
Ser	Leu	Ser	Ala	Tyr	Pro	Leu	Ser	Ser	Ser	Cys	Val	Ile	Leu	Ser	Trp		
		690				695					700						
Thr	Leu	Ser	Pro	Asp	Asp	Tyr	Ser	Leu	Leu	Tyr	Leu	Val	Ile	Glu	Trp		
705					710					715					720		
Lys	Ile	Leu	Asn	Glu	Asp	Asp	Gly	Met	Lys	Trp	Leu	Arg	Ile	Pro	Ser		
			725						730					735			
Asn	Val	Lys	Lys	Phe	Tyr	Ile	His	Asp	Asn	Phe	Ile	Pro	Ile	Glu	Lys		
			740					745					750				
Tyr	Gln	Phe	Ser	Leu	Tyr	Pro	Val	Phe	Met	Glu	Gly	Val	Gly	Lys	Pro		
		755					760					765					
Lys	Ile	Ile	Asn	Gly	Phe	Thr	Lys	Asp	Ala	Ile	Asp	Lys	Gln	Gln	Asn		
	770					775					780						

Asp Ala Gly Leu Tyr Val Ile Val Pro Ile Ile Ile Ser Ser Cys Val  
785 790 795 800

Leu Leu Leu Gly Thr Leu Leu Ile Ser His Gln Arg Met Lys Lys Leu  
805 810 815

Phe Trp Asp Asp Val Pro Asn Pro Lys Asn Cys Ser Trp Ala Gln Gly  
820 825 830

Leu Asn Phe Gln Lys Pro Glu Thr Phe Glu Gln Leu Phe Thr Lys His  
835 840 845

Ala Glu Ser Val Ile Phe Gly Pro Leu Leu Leu Glu Pro Glu Pro Ile  
850 855 860

Ser Glu Glu Ile Ser Val Asp Thr Ala Trp Lys Asn Lys Asp Glu Met  
865 870 875 880

Val Pro Ala Ala Met Val Ser Leu Leu Leu Thr Thr Pro Asp Pro Glu  
885 890 895

Ser Ser Ser Ile Cys Ile Ser Asp Gln Cys Asn Ser Ala Asn Phe Ser  
900 905 910

Gly Ser Gln Ser Thr Gln Val Thr Cys Glu Asp Glu Cys Gln Arg Gln  
915 920 925

Pro Ser Val Lys Tyr Ala Thr Leu Val Ser Asn Asp Lys Leu Val Glu  
930 935 940

Thr Asp Glu Glu Gln Gly Phe Ile His Ser Pro Val Ser Asn Cys Ile  
945 950 955 960

Ser Ser Asn His Ser Pro Leu Arg Gln Ser Phe Ser Ser Ser Ser Trp  
965 970 975

Glu Thr Glu Ala Gln Thr Phe Phe Leu Leu Ser Asp Gln Gln Pro Thr  
980 985 990

Met Ile Ser Pro Gln Leu Ser Phe Ser Gly Leu Asp Glu Leu Leu Glu  
995 1000 1005

Leu Glu Gly Ser Phe Pro Glu Glu Asn His Arg Glu Lys Ser Val  
1010 1015 1020

Cys Tyr Leu Gly Val Thr Ser Val Asn Arg Arg Glu Ser Gly Val  
1025 1030 1035

Leu Leu Thr Gly Glu Ala Gly Ile Leu Cys Thr Phe Pro Ala Gln  
1040 1045 1050

Cys Leu Phe Ser Asp Ile Arg Ile Leu Gln Glu Arg Cys Ser His  
1055 1060 1065

Phe Val Glu Asn Asn Leu Ser Leu Gly Thr Ser Gly Glu Asn Phe  
1070 1075 1080

Val Pro Tyr Met Pro Gln Phe Gln Thr Cys Ser Thr His Ser His  
1085 1090 1095

Lys Ile Met Glu Asn Lys Met Cys Asp Leu Thr Val  
1100 1105 1110

<210> 58

<211> 840

<212> PRT

<213> Mus musculus

<220>

<221> MISC\_FEATURE

<222> (29)..(29)

<223> X can be any amino acid

<400> 58

Gly Leu Arg Ser Ala Ser Tyr Gln Pro Leu Lys Arg Phe Ser Arg Phe  
1 5 10 15

Gln Ala Leu Ser Pro Cys Arg Ile Ser Thr Ser Leu Xaa Leu Val Pro  
20 25 30

Asn Ser Ala Arg Gly Cys Phe Gly Asn Glu Gln Gly Gln Asn Cys Ser  
35 40 45

Ala Leu Thr Asp Asn Thr Glu Gly Lys Thr Leu Ala Ser Val Val Lys  
50 55 60

Ala Ser Val Phe Arg Gln Leu Gly Val Asn Trp Asp Ile Glu Cys Trp  
65 70 75 80

Met Lys Gly Asp Leu Thr Leu Phe Ile Cys His Met Glu Pro Leu Pro  
85 90 95

Lys Asn Pro Phe Lys Asn Tyr Asp Ser Lys Val His Leu Leu Tyr Asp  
100 105 110

Leu Pro Glu Val Ile Asp Asp Ser Pro Leu Pro Pro Leu Lys Asp Ser  
115 120 125

Phe Gln Thr Val Gln Cys Asn Cys Ser Leu Arg Gly Cys Glu Cys His  
130 135 140

Val Pro Val Pro Arg Ala Lys Leu Asn Tyr Ala Leu Leu Met Tyr Leu  
145 150 155 160

Glu Ile Thr Ser Ala Gly Val Ser Phe Gln Ser Pro Leu Met Ser Leu  
165 170 175

Gln Pro Met Leu Val Val Lys Pro Asp Pro Pro Leu Gly Leu His Met  
180 185 190

Glu Val Thr Asp Asp Gly Asn Leu Lys Ile Ser Trp Asp Ser Gln Thr  
195 200 205

Met Ala Pro Phe Pro Leu Gln Tyr Gln Val Lys Tyr Leu Glu Asn Ser  
210 215 220

Thr Ile Val Arg Glu Ala Ala Glu Ile Val Ser Ala Thr Ser Leu Leu  
225 230 235 240

Val Asp Ser Val Leu Pro Gly Ser Ser Tyr Glu Val Gln Val Arg Ser  
245 250 255

Lys Arg Leu Asp Gly Ser Gly Val Trp Ser Asp Trp Ser Ser Pro Gln  
260 265 270

Val Phe Thr Thr Gln Asp Val Val Tyr Phe Pro Pro Lys Ile Leu Thr  
275 280 285

Ser Val Gly Ser Asn Ala Ser Phe His Cys Ile Tyr Lys Asn Glu Asn

290

295

300

Gln Ile Ile Ser Ser Lys Gln Ile Val Trp Trp Arg Asn Leu Ala Glu  
305 310 315 320

Lys Ile Pro Glu Ile Gln Tyr Ser Ile Val Ser Asp Arg Val Ser Lys  
325 330 335

Val Thr Phe Ser Asn Leu Lys Ala Thr Arg Pro Arg Gly Lys Phe Thr  
340 345 350

Tyr Asp Ala Val Tyr Cys Cys Asn Glu Gln Ala Cys His His Arg Tyr  
355 360 365

Ala Glu Leu Tyr Val Ile Asp Val Asn Ile Asn Ile Ser Cys Glu Thr  
370 375 380

Asp Gly Tyr Leu Thr Lys Met Thr Cys Arg Trp Ser Pro Ser Thr Ile  
385 390 395 400

Gln Ser Leu Val Gly Ser Thr Val Gln Leu Arg Tyr His Arg Arg Ser  
405 410 415

Leu Tyr Cys Pro Asp Ser Pro Ser Ile His Pro Thr Ser Glu Pro Lys  
420 425 430

Asn Cys Val Leu Gln Arg Asp Gly Phe Tyr Glu Cys Val Phe Gln Pro  
435 440 445

Ile Phe Leu Leu Ser Gly Tyr Thr Met Trp Ile Arg Ile Asn His Ser  
450 455 460

Leu Gly Ser Leu Asp Ser Pro Pro Thr Cys Val Leu Pro Asp Ser Val  
465 470 475 480

Val Lys Pro Leu Pro Pro Ser Asn Val Lys Ala Glu Ile Thr Val Asn  
485 490 495

Thr Gly Leu Leu Lys Val Ser Trp Glu Lys Pro Val Phe Pro Glu Asn  
500 505 510

Asn Leu Gln Phe Gln Ile Arg Tyr Gly Leu Ser Gly Lys Glu Ile Gln  
515 520 525

Trp Lys Thr His Glu Val Phe Asp Ala Lys Ser Lys Ser Ala Ser Leu  
530 535 540

Leu Val Ser Asp Leu Cys Ala Val Tyr Val Val Gln Val Arg Cys Arg  
545 550 555 560

Arg Leu Asp Gly Leu Gly Tyr Trp Ser Asn Trp Ser Ser Pro Ala Tyr  
565 570 575

Thr Leu Val Met Asp Val Lys Val Pro Met Arg Gly Pro Glu Phe Trp  
580 585 590

Arg Lys Met Asp Gly Asp Val Thr Lys Lys Glu Arg Asn Val Thr Leu  
595 600 605

Leu Trp Lys Pro Leu Thr Lys Asn Asp Ser Leu Cys Ser Val Arg Arg  
610 615 620

Tyr Val Val Lys His Arg Thr Ala His Asn Gly Thr Trp Ser Glu Asp  
625 630 635 640

Val Gly Asn Arg Thr Asn Leu Thr Phe Leu Trp Thr Glu Pro Ala His  
645 650 655

Thr Val Thr Val Leu Ala Val Asn Ser Leu Gly Ala Ser Leu Val Asn  
660 665 670

Phe Asn Leu Thr Phe Ser Trp Pro Met Ser Lys Val Ser Ala Val Glu  
675 680 685

Ser Leu Ser Ala Tyr Pro Leu Ser Ser Ser Cys Val Ile Leu Ser Trp  
690 695 700

Thr Leu Ser Pro Asp Asp Tyr Ser Leu Leu Tyr Leu Val Ile Glu Trp  
705 710 715 720

Lys Ile Leu Asn Glu Asp Asp Gly Met Lys Trp Leu Arg Ile Pro Ser  
725 730 735

Asn Val Lys Lys Phe Tyr Ile His Asp Asn Phe Ile Pro Ile Glu Lys  
740 745 750

Tyr Gln Phe Ser Leu Tyr Pro Val Phe Met Glu Gly Val Gly Lys Pro  
755 760 765

Lys Ile Ile Asn Gly Phe Thr Lys Asp Ala Ile Asp Lys Gln Gln Asn  
770 775 780

Asp Ala Gly Leu Tyr Val Ile Val Pro Ile Ile Ile Ser Ser Cys Val  
785 790 795 800

Leu Leu Leu Gly Thr Leu Leu Ile Ser His Gln Arg Met Lys Lys Leu  
805 810 815

Phe Trp Asp Asp Val Pro Asn Pro Lys Asn Cys Ser Trp Ala Gln Gly  
820 825 830

Leu Asn Phe Gln Lys Val Thr Val  
835 840

<210> 59  
<211> 848  
<212> PRT  
<213> Mus musculus

<220>  
<221> MISC\_FEATURE  
<222> (29)..(29)  
<223> X can be any amino acid

<400> 59

Gly Leu Arg Ser Ala Ser Tyr Gln Pro Leu Lys Arg Phe Ser Arg Phe  
1 5 10 15

Gln Ala Leu Ser Pro Cys Arg Ile Ser Thr Ser Leu Xaa Leu Val Pro  
20 25 30

Asn Ser Ala Arg Gly Cys Phe Gly Asn Glu Gln Gly Gln Asn Cys Ser  
35 40 45

Ala Leu Thr Asp Asn Thr Glu Gly Lys Thr Leu Ala Ser Val Val Lys  
50 55 60

Ala Ser Val Phe Arg Gln Leu Gly Val Asn Trp Asp Ile Glu Cys Trp  
65 70 75 80



Met Lys Gly Asp Leu Thr Leu Phe Ile Cys His Met Glu Pro Leu Pro  
85 90 95

Lys Asn Pro Phe Lys Asn Tyr Asp Ser Lys Val His Leu Leu Tyr Asp  
100 105 110

Leu Pro Glu Val Ile Asp Asp Ser Pro Leu Pro Pro Leu Lys Asp Ser  
115 120 125

Phe Gln Thr Val Gln Cys Asn Cys Ser Leu Arg Gly Cys Glu Cys His  
130 135 140

Val Pro Val Pro Arg Ala Lys Leu Asn Tyr Ala Leu Leu Met Tyr Leu  
145 150 155 160

Glu Ile Thr Ser Ala Gly Val Ser Phe Gln Ser Pro Leu Met Ser Leu  
165 170 175

Gln Pro Met Leu Val Val Lys Pro Asp Pro Pro Leu Gly Leu His Met  
180 185 190

Glu Val Thr Asp Asp Gly Asn Leu Lys Ile Ser Trp Asp Ser Gln Thr  
195 200 205

Met Ala Pro Phe Pro Leu Gln Tyr Gln Val Lys Tyr Leu Glu Asn Ser  
210 215 220

Thr Ile Val Arg Glu Ala Ala Glu Ile Val Ser Ala Thr Ser Leu Leu  
225 230 235 240

Val Asp Ser Val Leu Pro Gly Ser Ser Tyr Glu Val Gln Val Arg Ser  
245 250 255

Lys Arg Leu Asp Gly Ser Gly Val Trp Ser Asp Trp Ser Ser Pro Gln  
260 265 270

Val Phe Thr Thr Gln Asp Val Val Tyr Phe Pro Pro Lys Ile Leu Thr  
275 280 285

Ser Val Gly Ser Asn Ala Ser Phe His Cys Ile Tyr Lys Asn Glu Asn  
290 295 300

Gln Ile Ile Ser Ser Lys Gln Ile Val Trp Trp Arg Asn Leu Ala Glu  
305 310 315 320

Lys Ile Pro Glu Ile Gln Tyr Ser Ile Val Ser Asp Arg Val Ser Lys  
325 330 335

Val Thr Phe Ser Asn Leu Lys Ala Thr Arg Pro Arg Gly Lys Phe Thr  
340 345 350

Tyr Asp Ala Val Tyr Cys Cys Asn Glu Gln Ala Cys His His Arg Tyr  
355 360 365

Ala Glu Leu Tyr Val Ile Asp Val Asn Ile Asn Ile Ser Cys Glu Thr  
370 375 380

Asp Gly Tyr Leu Thr Lys Met Thr Cys Arg Trp Ser Pro Ser Thr Ile  
385 390 395 400

Gln Ser Leu Val Gly Ser Thr Val Gln Leu Arg Tyr His Arg Arg Ser  
405 410 415

Leu Tyr Cys Pro Asp Ser Pro Ser Ile His Pro Thr Ser Glu Pro Lys  
420 425 430

Asn Cys Val Leu Gln Arg Asp Gly Phe Tyr Glu Cys Val Phe Gln Pro  
435 440 445

Ile Phe Leu Leu Ser Gly Tyr Thr Met Trp Ile Arg Ile Asn His Ser  
450 455 460

Leu Gly Ser Leu Asp Ser Pro Pro Thr Cys Val Leu Pro Asp Ser Val  
465 470 475 480

Val Lys Pro Leu Pro Pro Ser Asn Val Lys Ala Glu Ile Thr Val Asn  
485 490 495

Thr Gly Leu Leu Lys Val Ser Trp Glu Lys Pro Val Phe Pro Glu Asn  
500 505 510

Asn Leu Gln Phe Gln Ile Arg Tyr Gly Leu Ser Gly Lys Glu Ile Gln  
515 520 525

Trp Lys Thr His Glu Val Phe Asp Ala Lys Ser Lys Ser Ala Ser Leu

530

535

540

Leu Val Ser Asp Leu Cys Ala Val Tyr Val Val Gln Val Arg Cys Arg  
545 550 555 560

Arg Leu Asp Gly Leu Gly Tyr Trp Ser Asn Trp Ser Ser Pro Ala Tyr  
565 570 575

Thr Leu Val Met Asp Val Lys Val Pro Met Arg Gly Pro Glu Phe Trp  
580 585 590

Arg Lys Met Asp Gly Asp Val Thr Lys Lys Glu Arg Asn Val Thr Leu  
595 600 605

Leu Trp Lys Pro Leu Thr Lys Asn Asp Ser Leu Cys Ser Val Arg Arg  
610 615 620

Tyr Val Val Lys His Arg Thr Ala His Asn Gly Thr Trp Ser Glu Asp  
625 630 635 640

Val Gly Asn Arg Thr Asn Leu Thr Phe Leu Trp Thr Glu Pro Ala His  
645 650 655

Thr Val Thr Val Leu Ala Val Asn Ser Leu Gly Ala Ser Leu Val Asn  
660 665 670

Phe Asn Leu Thr Phe Ser Trp Pro Met Ser Lys Val Ser Ala Val Glu  
675 680 685

Ser Leu Ser Ala Tyr Pro Leu Ser Ser Ser Cys Val Ile Leu Ser Trp  
690 695 700

Thr Leu Ser Pro Asp Asp Tyr Ser Leu Leu Tyr Leu Val Ile Glu Trp  
705 710 715 720

Lys Ile Leu Asn Glu Asp Asp Gly Met Lys Trp Leu Arg Ile Pro Ser  
725 730 735

Asn Val Lys Lys Phe Tyr Ile His Asp Asn Phe Ile Pro Ile Glu Lys  
740 745 750

Tyr Gln Phe Ser Leu Tyr Pro Val Phe Met Glu Gly Val Gly Lys Pro  
755 760 765

Lys Ile Ile Asn Gly Phe Thr Lys Asp Ala Ile Asp Lys Gln Gln Asn  
770 775 780

Asp Ala Gly Leu Tyr Val Ile Val Pro Ile Ile Ile Ser Ser Cys Val  
785 790 795 800

Leu Leu Leu Gly Thr Leu Leu Ile Ser His Gln Arg Met Lys Lys Leu  
805 810 815

Phe Trp Asp Asp Val Pro Asn Pro Lys Asn Cys Ser Trp Ala Gln Gly  
820 825 830

Leu Asn Phe Gln Lys Asp Ile Ser Leu His Glu Val Phe Ile Phe Arg  
835 840 845

<210> 60  
<211> 314  
<212> PRT  
<213> Mus musculus

<220>  
<221> MISC\_FEATURE  
<222> (79)..(79)  
<223> X can be any amino acid

<400> 60

Leu Arg Asp Leu Val Ser Gly Phe Glu Glu Ile Asn Lys Ile Lys Glu  
1 5 10 15

Asn Phe Ser Arg Ala Gly Leu Leu Ala Glu Leu Arg Pro Thr Ala Phe  
20 25 30

Tyr Ile Ser Thr Leu Ser Leu Phe Pro Ser Ala Leu Ala Leu Asp Trp  
35 40 45

Ala Val Pro Gly Leu Val Leu Leu Phe Pro Gly Gly Asn Val Glu Leu  
50 55 60

His Glu Phe Trp Tyr Lys His Cys Gly Leu Cys Ala Asn Ile Xaa Cys  
65 70 75 80

Phe Leu Gln Pro Leu Thr Lys Asn Asp Ser Leu Cys Ser Val Arg Arg  
85 90 95

Tyr Val Val Lys His Arg Thr Ala His Asn Gly Thr Trp Ser Glu Asp  
100 105 110

Val Gly Asn Arg Thr Asn Leu Thr Phe Leu Trp Thr Glu Pro Ala His  
115 120 125

Thr Val Thr Val Leu Ala Val Asn Ser Leu Gly Ala Ser Leu Val Asn  
130 135 140

Phe Asn Leu Thr Phe Ser Trp Pro Met Ser Lys Val Ser Ala Val Glu  
145 150 155 160

Ser Leu Ser Ala Tyr Pro Leu Ser Ser Ser Cys Val Ile Leu Ser Trp  
165 170 175

Thr Leu Ser Pro Asp Asp Tyr Ser Leu Leu Tyr Leu Val Ile Glu Trp  
180 185 190

Lys Ile Leu Asn Glu Asp Asp Gly Met Lys Trp Leu Arg Ile Pro Ser  
195 200 205

Asn Val Lys Lys Phe Tyr Ile His Asp Asn Phe Ile Pro Ile Glu Lys  
210 215 220

Tyr Gln Phe Ser Leu Tyr Pro Val Phe Met Glu Gly Val Gly Lys Pro  
225 230 235 240

Lys Ile Ile Asn Gly Phe Thr Lys Asp Ala Ile Asp Lys Gln Gln Asn  
245 250 255

Asp Ala Gly Leu Tyr Val Ile Val Pro Ile Ile Ile Ser Ser Cys Val  
260 265 270

Leu Leu Leu Gly Thr Leu Leu Ile Ser His Gln Arg Met Lys Lys Leu  
275 280 285

Phe Trp Asp Asp Val Pro Asn Pro Lys Asn Cys Ser Trp Ala Gln Gly  
290 295 300

Leu Asn Phe Gln Lys Arg Thr Asp Thr Leu  
305 310

<210> 61  
<211> 321  
<212> PRT  
<213> Mus musculus

<220>  
<221> MISC\_FEATURE  
<222> (14)..(14)  
<223> X can be any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (19)..(19)  
<223> X can be any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (25)..(25)  
<223> X can be any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (58)..(58)  
<223> X can be any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (67)..(67)  
<223> X can be any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (68)..(68)  
<223> X can be any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (84)..(84)  
<223> X can be any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (86)..(86)  
<223> X can be any amino acid

<400> 61

Leu Arg Asp Leu Val Ser Gly Phe Glu Glu Ile Asn Lys Xaa Ile Lys

1	5	10	15
Glu Asn Xaa Phe Ser Arg Ala	Gly Xaa Leu Leu Ala Glu Leu Arg Pro		
20	25	30	
Thr Ala Phe Tyr Ile Ser Thr	Leu Ser Leu Phe Pro Ser Ala Leu Ala		
35	40	45	
Leu Asp Trp Ala Val Pro Gly	Leu Val Xaa Leu Leu Phe Pro Gly Gly		
50	55	60	
Asn Val Xaa Xaa Glu Leu His	Glu Phe Trp Tyr Lys His Cys Gly Leu		
65	70	75	80
Cys Ala Asn Xaa Ile Xaa Cys Phe	Leu Gln Pro Leu Thr Lys Asn Asp		
85	90	95	
Ser Leu Cys Ser Val Arg Arg Tyr	Val Val Lys His Arg Thr Ala His		
100	105	110	
Asn Gly Thr Trp Ser Glu Asp Val	Gly Asn Arg Thr Asn Leu Thr Phe		
115	120	125	
Leu Trp Thr Glu Pro Ala His Thr	Val Thr Val Leu Ala Val Asn Ser		
130	135	140	
Leu Gly Ala Ser Leu Val Asn Phe	Asn Leu Thr Phe Ser Trp Pro Met		
145	150	155	160
Ser Lys Val Ser Ala Val Glu Ser	Leu Ser Ala Tyr Pro Leu Ser Ser		
165	170	175	
Ser Cys Val Ile Leu Ser Trp Thr	Leu Ser Pro Asp Asp Tyr Ser Leu		
180	185	190	
Leu Tyr Leu Val Ile Glu Trp Lys	Ile Leu Asn Glu Asp Asp Gly Met		
195	200	205	
Lys Trp Leu Arg Ile Pro Ser Asn	Val Lys Lys Phe Tyr Ile His Asp		
210	215	220	
Asn Phe Ile Pro Ile Glu Lys Tyr	Gln Phe Ser Leu Tyr Pro Val Phe		
225	230	235	240

Met Glu Gly Val Gly Lys Pro Lys Ile Ile Asn Gly Phe Thr Lys Asp  
245 250 255

Ala Ile Asp Lys Gln Gln Asn Asp Ala Gly Leu Tyr Val Ile Val Pro  
260 265 270

Ile Ile Ile Ser Ser Cys Val Leu Leu Leu Gly Thr Leu Leu Ile Ser  
275 280 285

His Gln Arg Met Lys Lys Leu Phe Trp Asp Asp Val Pro Asn Pro Lys  
290 295 300

Asn Cys Ser Trp Ala Gln Gly Leu Asn Phe Gln Lys Arg Thr Asp Thr  
305 310 315 320

Leu

<210> 62  
<211> 320  
<212> PRT  
<213> Mus musculus

<220>  
<221> MISC\_FEATURE  
<222> (79)..(79)  
<223> X can be any amino acid

<400> 62

Leu Arg Asp Leu Val Ser Gly Phe Glu Glu Ile Asn Lys Ile Lys Glu  
1 5 10 15

Asn Phe Ser Arg Ala Gly Leu Leu Ala Glu Leu Arg Pro Thr Ala Phe  
20 25 30

Tyr Ile Ser Thr Leu Ser Leu Phe Pro Ser Ala Leu Ala Leu Asp Trp  
35 40 45

Ala Val Pro Gly Leu Val Leu Leu Phe Pro Gly Gly Asn Val Glu Leu  
50 55 60

His Glu Phe Trp Tyr Lys His Cys Gly Leu Cys Ala Asn Ile Xaa Cys  
65 70 75 80



Phe Leu Gln Pro Leu Thr Lys Asn Asp Ser Leu Cys Ser Val Arg Arg  
85 90 95

Tyr Val Val Lys His Arg Thr Ala His Asn Gly Thr Trp Ser Glu Asp  
100 105 110

Val Gly Asn Arg Thr Asn Leu Thr Phe Leu Trp Thr Glu Pro Ala His  
115 120 125

Thr Val Thr Val Leu Ala Val Asn Ser Leu Gly Ala Ser Leu Val Asn  
130 135 140

Phe Asn Leu Thr Phe Ser Trp Pro Met Ser Lys Val Ser Ala Val Glu  
145 150 155 160

Ser Leu Ser Ala Tyr Pro Leu Ser Ser Ser Cys Val Ile Leu Ser Trp  
165 170 175

Thr Leu Ser Pro Asp Asp Tyr Ser Leu Leu Tyr Leu Val Ile Glu Trp  
180 185 190

Lys Ile Leu Asn Glu Asp Asp Gly Met Lys Trp Leu Arg Ile Pro Ser  
195 200 205

Asn Val Lys Lys Phe Tyr Ile His Asp Asn Phe Ile Pro Ile Glu Lys  
210 215 220

Tyr Gln Phe Ser Leu Tyr Pro Val Phe Met Glu Gly Val Gly Lys Pro  
225 230 235 240

Lys Ile Ile Asn Gly Phe Thr Lys Asp Ala Ile Asp Lys Gln Gln Asn  
245 250 255

Asp Ala Gly Leu Tyr Val Ile Val Pro Ile Ile Ile Ser Ser Cys Val  
260 265 270

Leu Leu Leu Gly Thr Leu Leu Ile Ser His Gln Arg Met Lys Lys Leu  
275 280 285

Phe Trp Asp Asp Val Pro Asn Pro Lys Asn Cys Ser Trp Ala Gln Gly  
290 295 300

Leu Asn Phe Gln Lys Asp Ile Ser Leu His Glu Val Phe Ile Phe Arg  
305 310 315 320

<210> 63  
<211> 327  
<212> PRT  
<213> Mus musculus

<220>  
<221> MISC\_FEATURE  
<222> (14)..(14)  
<223> X can be any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (19)..(19)  
<223> X can be any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (25)..(25)  
<223> X can be any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (58)..(58)  
<223> X can be any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (67)..(67)  
<223> X can be any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (68)..(68)  
<223> X can be any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (84)..(84)  
<223> X can be any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (86)..(86)  
<223> X can be any amino acid

<400> 63

Leu Arg Asp Leu Val Ser Gly Phe Glu Glu Ile Asn Lys Xaa Ile Lys  
1 5 10 15

Glu Asn Xaa Phe Ser Arg Ala Gly Xaa Leu Leu Ala Glu Leu Arg Pro  
20 25 30

Thr Ala Phe Tyr Ile Ser Thr Leu Ser Leu Phe Pro Ser Ala Leu Ala  
35 40 45

Leu Asp Trp Ala Val Pro Gly Leu Val Xaa Leu Leu Phe Pro Gly Gly  
50 55 60

Asn Val Xaa Xaa Glu Leu His Glu Phe Trp Tyr Lys His Cys Gly Leu  
65 70 75 80

Cys Ala Asn Xaa Ile Xaa Cys Phe Leu Gln Pro Leu Thr Lys Asn Asp  
85 90 95

Ser Leu Cys Ser Val Arg Arg Tyr Val Val Lys His Arg Thr Ala His  
100 105 110

Asn Gly Thr Trp Ser Glu Asp Val Gly Asn Arg Thr Asn Leu Thr Phe  
115 120 125

Leu Trp Thr Glu Pro Ala His Thr Val Thr Val Leu Ala Val Asn Ser  
130 135 140

Leu Gly Ala Ser Leu Val Asn Phe Asn Leu Thr Phe Ser Trp Pro Met  
145 150 155 160

Ser Lys Val Ser Ala Val Glu Ser Leu Ser Ala Tyr Pro Leu Ser Ser  
165 170 175

Ser Cys Val Ile Leu Ser Trp Thr Leu Ser Pro Asp Asp Tyr Ser Leu  
180 185 190

Leu Tyr Leu Val Ile Glu Trp Lys Ile Leu Asn Glu Asp Asp Gly Met  
195 200 205

Lys Trp Leu Arg Ile Pro Ser Asn Val Lys Lys Phe Tyr Ile His Asp  
210 215 220

Asn Phe Ile Pro Ile Glu Lys Tyr Gln Phe Ser Leu Tyr Pro Val Phe  
225 230 235 240

Met Glu Gly Val Gly Lys Pro Lys Ile Ile Asn Gly Phe Thr Lys Asp  
245 250 255

Ala Ile Asp Lys Gln Gln Asn Asp Ala Gly Leu Tyr Val Ile Val Pro  
260 265 270

Ile Ile Ile Ser Ser Cys Val Leu Leu Leu Gly Thr Leu Leu Ile Ser  
275 280 285

His Gln Arg Met Lys Lys Leu Phe Trp Asp Asp Val Pro Asn Pro Lys  
290 295 300

Asn Cys Ser Trp Ala Gln Gly Leu Asn Phe Gln Lys Asp Ile Ser Leu  
305 310 315 320

His Glu Val Phe Ile Phe Arg  
325

<210> 64  
<211> 894  
<212> PRT  
<213> Mus musculus

<400> 64

Met Met Cys Gln Lys Phe Tyr Val Val Leu Leu His Trp Glu Phe Leu  
1 5 10 15

Tyr Val Ile Ala Ala Leu Asn Leu Ala Tyr Pro Ile Ser Pro Trp Lys  
20 25 30

Phe Lys Leu Phe Cys Gly Pro Pro Asn Thr Thr Asp Asp Ser Phe Leu  
35 40 45

Ser Pro Ala Gly Ala Pro Asn Asn Ala Ser Ala Leu Lys Gly Ala Ser  
50 55 60

Glu Ala Ile Val Glu Ala Lys Phe Asn Ser Ser Gly Ile Tyr Val Pro  
65 70 75 80

Glu Leu Ser Lys Thr Val Phe His Cys Cys Phe Gly Asn Glu Gln Gly  
 85 90 95

Gln Asn Cys Ser Ala Leu Thr Asp Asn Thr Glu Gly Lys Thr Leu Ala  
 100 105 110

Ser Val Val Lys Ala Ser Val Phe Arg Gln Leu Gly Val Asn Trp Asp  
 115 120 125

Ile Glu Cys Trp Met Lys Gly Asp Leu Thr Leu Phe Ile Cys His Met  
 130 135 140

Glu Pro Leu Pro Lys Asn Pro Phe Lys Asn Tyr Asp Ser Lys Val His  
 145 150 155 160

Leu Leu Tyr Asp Leu Pro Glu Val Ile Asp Asp Ser Pro Leu Pro Pro  
 165 170 175

Leu Lys Asp Ser Phe Gln Thr Val Gln Cys Asn Cys Ser Leu Arg Gly  
 180 185 190

Cys Glu Cys His Val Pro Val Pro Arg Ala Lys Leu Asn Tyr Ala Leu  
 195 200 205

Leu Met Tyr Leu Glu Ile Thr Ser Ala Gly Val Ser Phe Gln Ser Pro  
 210 215 220

Leu Met Ser Leu Gln Pro Met Leu Val Val Lys Pro Asp Pro Pro Leu  
 225 230 235 240

Gly Leu His Met Glu Val Thr Asp Asp Gly Asn Leu Lys Ile Ser Trp  
 245 250 255

Asp Ser Gln Thr Met Ala Pro Phe Pro Leu Gln Tyr Gln Val Lys Tyr  
 260 265 270

Leu Glu Asn Ser Thr Ile Val Arg Glu Ala Ala Glu Ile Val Ser Ala  
 275 280 285

Thr Ser Leu Leu Val Asp Ser Val Leu Pro Gly Ser Ser Tyr Glu Val  
 290 295 300

Gln Val Arg Ser Lys Arg Leu Asp Gly Ser Gly Val Trp Ser Asp Trp

305		310		315		320
Ser Ser Pro Gln Val Phe Thr Thr Gln	Asp Val Val Tyr Phe Pro Pro					
	325		330		335	
Lys Ile Leu Thr Ser Val Gly Ser Asn Ala Ser Phe His Cys Ile Tyr						
	340		345		350	
Lys Asn Glu Asn Gln Ile Ile Ser Ser Lys Gln Ile Val Trp Trp Arg						
	355		360		365	
Asn Leu Ala Glu Lys Ile Pro Glu Ile Gln Tyr Ser Ile Val Ser Asp						
	370		375		380	
Arg Val Ser Lys Val Thr Phe Ser Asn Leu Lys Ala Thr Arg Pro Arg						
	385		390		395	400
Gly Lys Phe Thr Tyr Asp Ala Val Tyr Cys Cys Asn Glu Gln Ala Cys						
	405		410			415
His His Arg Tyr Ala Glu Leu Tyr Val Ile Asp Val Asn Ile Asn Ile						
	420		425			430
Ser Cys Glu Thr Asp Gly Tyr Leu Thr Lys Met Thr Cys Arg Trp Ser						
	435		440		445	
Pro Ser Thr Ile Gln Ser Leu Val Gly Ser Thr Val Gln Leu Arg Tyr						
	450		455		460	
His Arg Arg Ser Leu Tyr Cys Pro Asp Ser Pro Ser Ile His Pro Thr						
	465		470		475	480
Ser Glu Pro Lys Asn Cys Val Leu Gln Arg Asp Gly Phe Tyr Glu Cys						
	485		490			495
Val Phe Gln Pro Ile Phe Leu Leu Ser Gly Tyr Thr Met Trp Ile Arg						
	500		505			510
Ile Asn His Ser Leu Gly Ser Leu Asp Ser Pro Pro Thr Cys Val Leu						
	515		520		525	
Pro Asp Ser Val Val Lys Pro Leu Pro Pro Ser Asn Val Lys Ala Glu						
	530		535		540	

Ile Thr Val Asn Thr Gly Leu Leu Lys Val Ser Trp Glu Lys Pro Val  
545 550 555 560

Phe Pro Glu Asn Asn Leu Gln Phe Gln Ile Arg Tyr Gly Leu Ser Gly  
565 570 575

Lys Glu Ile Gln Trp Lys Thr His Glu Val Phe Asp Ala Lys Ser Lys  
580 585 590

Ser Ala Ser Leu Leu Val Ser Asp Leu Cys Ala Val Tyr Val Val Gln  
595 600 605

Val Arg Cys Arg Arg Leu Asp Gly Leu Gly Tyr Trp Ser Asn Trp Ser  
610 615 620

Ser Pro Ala Tyr Thr Leu Val Met Asp Val Lys Val Pro Met Arg Gly  
625 630 635 640

Pro Glu Phe Trp Arg Lys Met Asp Gly Asp Val Thr Lys Lys Glu Arg  
645 650 655

Asn Val Thr Leu Leu Trp Lys Pro Leu Thr Lys Asn Asp Ser Leu Cys  
660 665 670

Ser Val Arg Arg Tyr Val Val Lys His Arg Thr Ala His Asn Gly Thr  
675 680 685

Trp Ser Glu Asp Val Gly Asn Arg Thr Asn Leu Thr Phe Leu Trp Thr  
690 695 700

Glu Pro Ala His Thr Val Thr Val Leu Ala Val Asn Ser Leu Gly Ala  
705 710 715 720

Ser Leu Val Asn Phe Asn Leu Thr Phe Ser Trp Pro Met Ser Lys Val  
725 730 735

Ser Ala Val Glu Ser Leu Ser Ala Tyr Pro Leu Ser Ser Ser Cys Val  
740 745 750

Ile Leu Ser Trp Thr Leu Ser Pro Asp Asp Tyr Ser Leu Leu Tyr Leu  
755 760 765

Val Ile Glu Trp Lys Ile Leu Asn Glu Asp Asp Gly Met Lys Trp Leu  
770 775 780

Arg Ile Pro Ser Asn Val Lys Lys Phe Tyr Ile His Asp Asn Phe Ile  
785 790 795 800

Pro Ile Glu Lys Tyr Gln Phe Ser Leu Tyr Pro Val Phe Met Glu Gly  
805 810 815

Val Gly Lys Pro Lys Ile Ile Asn Gly Phe Thr Lys Asp Ala Ile Asp  
820 825 830

Lys Gln Gln Asn Asp Ala Gly Leu Tyr Val Ile Val Pro Ile Ile Ile  
835 840 845

Ser Ser Cys Val Leu Leu Leu Gly Thr Leu Leu Ile Ser His Gln Arg  
850 855 860

Met Lys Lys Leu Phe Trp Asp Asp Val Pro Asn Pro Lys Asn Cys Ser  
865 870 875 880

Trp Ala Gln Gly Leu Asn Phe Gln Lys Arg Thr Asp Thr Leu  
885 890

<210> 65  
<211> 1162  
<212> PRT  
<213> Mus musculus

<400> 65

Met Met Cys Gln Lys Phe Tyr Val Val Leu Leu His Trp Glu Phe Leu  
1 5 10 15

Tyr Val Ile Ala Ala Leu Asn Leu Ala Tyr Pro Ile Ser Pro Trp Lys  
20 25 30

Phe Lys Leu Phe Cys Gly Pro Pro Asn Thr Thr Asp Asp Ser Phe Leu  
35 40 45

Ser Pro Ala Gly Ala Pro Asn Asn Ala Ser Ala Leu Lys Gly Ala Ser  
50 55 60

Glu Ala Ile Val Glu Ala Lys Phe Asn Ser Ser Gly Ile Tyr Val Pro



65		70		75		80									
Glu	Leu	Ser	Lys	Thr	Val	Phe	His	Cys	Cys	Phe	Gly	Asn	Glu	Gln	Gly
				85					90					95	
Gln	Asn	Cys	Ser	Ala	Leu	Thr	Asp	Asn	Thr	Glu	Gly	Lys	Thr	Leu	Ala
			100					105					110		
Ser	Val	Val	Lys	Ala	Ser	Val	Phe	Arg	Gln	Leu	Gly	Val	Asn	Trp	Asp
			115				120						125		
Ile	Glu	Cys	Trp	Met	Lys	Gly	Asp	Leu	Thr	Leu	Phe	Ile	Cys	His	Met
	130					135					140				
Glu	Pro	Leu	Pro	Lys	Asn	Pro	Phe	Lys	Asn	Tyr	Asp	Ser	Lys	Val	His
145					150					155					160
Leu	Leu	Tyr	Asp	Leu	Pro	Glu	Val	Ile	Asp	Asp	Ser	Pro	Leu	Pro	Pro
				165					170					175	
Leu	Lys	Asp	Ser	Phe	Gln	Thr	Val	Gln	Cys	Asn	Cys	Ser	Leu	Arg	Gly
			180					185					190		
Cys	Glu	Cys	His	Val	Pro	Val	Pro	Arg	Ala	Lys	Leu	Asn	Tyr	Ala	Leu
		195					200					205			
Leu	Met	Tyr	Leu	Glu	Ile	Thr	Ser	Ala	Gly	Val	Ser	Phe	Gln	Ser	Pro
	210					215					220				
Leu	Met	Ser	Leu	Gln	Pro	Met	Leu	Val	Val	Lys	Pro	Asp	Pro	Pro	Leu
225					230					235					240
Gly	Leu	His	Met	Glu	Val	Thr	Asp	Asp	Gly	Asn	Leu	Lys	Ile	Ser	Trp
			245						250					255	
Asp	Ser	Gln	Thr	Met	Ala	Pro	Phe	Pro	Leu	Gln	Tyr	Gln	Val	Lys	Tyr
			260					265						270	
Leu	Glu	Asn	Ser	Thr	Ile	Val	Arg	Glu	Ala	Ala	Glu	Ile	Val	Ser	Ala
		275					280					285			
Thr	Ser	Leu	Leu	Val	Asp	Ser	Val	Leu	Pro	Gly	Ser	Ser	Tyr	Glu	Val
	290					295					300				

Gln Val Arg Ser Lys Arg Leu Asp Gly Ser Gly Val Trp Ser Asp Trp  
305 310 315 320

Ser Ser Pro Gln Val Phe Thr Thr Gln Asp Val Val Tyr Phe Pro Pro  
325 330 335

Lys Ile Leu Thr Ser Val Gly Ser Asn Ala Ser Phe His Cys Ile Tyr  
340 345 350

Lys Asn Glu Asn Gln Ile Ile Ser Ser Lys Gln Ile Val Trp Trp Arg  
355 360 365

Asn Leu Ala Glu Lys Ile Pro Glu Ile Gln Tyr Ser Ile Val Ser Asp  
370 375 380

Arg Val Ser Lys Val Thr Phe Ser Asn Leu Lys Ala Thr Arg Pro Arg  
385 390 395 400

Gly Lys Phe Thr Tyr Asp Ala Val Tyr Cys Cys Asn Glu Gln Ala Cys  
405 410 415

His His Arg Tyr Ala Glu Leu Tyr Val Ile Asp Val Asn Ile Asn Ile  
420 425 430

Ser Cys Glu Thr Asp Gly Tyr Leu Thr Lys Met Thr Cys Arg Trp Ser  
435 440 445

Pro Ser Thr Ile Gln Ser Leu Val Gly Ser Thr Val Gln Leu Arg Tyr  
450 455 460

His Arg Arg Ser Leu Tyr Cys Pro Asp Ser Pro Ser Ile His Pro Thr  
465 470 475 480

Ser Glu Pro Lys Asn Cys Val Leu Gln Arg Asp Gly Phe Tyr Glu Cys  
485 490 495

Val Phe Gln Pro Ile Phe Leu Leu Ser Gly Tyr Thr Met Trp Ile Arg  
500 505 510

Ile Asn His Ser Leu Gly Ser Leu Asp Ser Pro Pro Thr Cys Val Leu  
515 520 525

Pro Asp Ser Val Val Lys Pro Leu Pro Pro Ser Asn Val Lys Ala Glu  
530 535 540

Ile Thr Val Asn Thr Gly Leu Leu Lys Val Ser Trp Glu Lys Pro Val  
545 550 555 560

Phe Pro Glu Asn Asn Leu Gln Phe Gln Ile Arg Tyr Gly Leu Ser Gly  
565 570 575

Lys Glu Ile Gln Trp Lys Thr His Glu Val Phe Asp Ala Lys Ser Lys  
580 585 590

Ser Ala Ser Leu Leu Val Ser Asp Leu Cys Ala Val Tyr Val Val Gln  
595 600 605

Val Arg Cys Arg Arg Leu Asp Gly Leu Gly Tyr Trp Ser Asn Trp Ser  
610 615 620

Ser Pro Ala Tyr Thr Leu Val Met Asp Val Lys Val Pro Met Arg Gly  
625 630 635 640

Pro Glu Phe Trp Arg Lys Met Asp Gly Asp Val Thr Lys Lys Glu Arg  
645 650 655

Asn Val Thr Leu Leu Trp Lys Pro Leu Thr Lys Asn Asp Ser Leu Cys  
660 665 670

Ser Val Arg Arg Tyr Val Val Lys His Arg Thr Ala His Asn Gly Thr  
675 680 685

Trp Ser Glu Asp Val Gly Asn Arg Thr Asn Leu Thr Phe Leu Trp Thr  
690 695 700

Glu Pro Ala His Thr Val Thr Val Leu Ala Val Asn Ser Leu Gly Ala  
705 710 715 720

Ser Leu Val Asn Phe Asn Leu Thr Phe Ser Trp Pro Met Ser Lys Val  
725 730 735

Ser Ala Val Glu Ser Leu Ser Ala Tyr Pro Leu Ser Ser Ser Cys Val  
740 745 750

Ile Leu Ser Trp Thr Leu Ser Pro Asp Asp Tyr Ser Leu Leu Tyr Leu  
755 760 765

Val Ile Glu Trp Lys Ile Leu Asn Glu Asp Asp Gly Met Lys Trp Leu  
770 775 780

Arg Ile Pro Ser Asn Val Lys Lys Phe Tyr Ile His Asp Asn Phe Ile  
785 790 795 800

Pro Ile Glu Lys Tyr Gln Phe Ser Leu Tyr Pro Val Phe Met Glu Gly  
805 810 815

Val Gly Lys Pro Lys Ile Ile Asn Gly Phe Thr Lys Asp Ala Ile Asp  
820 825 830

Lys Gln Gln Asn Asp Ala Gly Leu Tyr Val Ile Val Pro Ile Ile Ile  
835 840 845

Ser Ser Cys Val Leu Leu Leu Gly Thr Leu Leu Ile Ser His Gln Arg  
850 855 860

Met Lys Lys Leu Phe Trp Asp Asp Val Pro Asn Pro Lys Asn Cys Ser  
865 870 875 880

Trp Ala Gln Gly Leu Asn Phe Gln Lys Pro Glu Thr Phe Glu Gln Leu  
885 890 895

Phe Thr Lys His Ala Glu Ser Val Ile Phe Gly Pro Leu Leu Leu Glu  
900 905 910

Pro Glu Pro Ile Ser Glu Glu Ile Ser Val Asp Thr Ala Trp Lys Asn  
915 920 925

Lys Asp Glu Met Val Pro Ala Ala Met Val Ser Leu Leu Leu Thr Thr  
930 935 940

Pro Asp Pro Glu Ser Ser Ser Ile Cys Ile Ser Asp Gln Cys Asn Ser  
945 950 955 960

Ala Asn Phe Ser Gly Ser Gln Ser Thr Gln Val Thr Cys Glu Asp Glu  
965 970 975

Cys Gln Arg Gln Pro Ser Val Lys Tyr Ala Thr Leu Val Ser Asn Asp

980

985

990

Lys Leu Val Glu Thr Asp Glu Glu Gln Gly Phe Ile His Ser Pro Val  
 995 1000 1005

Ser Asn Cys Ile Ser Ser Asn His Ser Pro Leu Arg Gln Ser Phe  
 1010 1015 1020

Ser Ser Ser Ser Trp Glu Thr Glu Ala Gln Thr Phe Phe Leu Leu  
 1025 1030 1035

Ser Asp Gln Gln Pro Thr Met Ile Ser Pro Gln Leu Ser Phe Ser  
 1040 1045 1050

Gly Leu Asp Glu Leu Leu Glu Leu Glu Gly Ser Phe Pro Glu Glu  
 1055 1060 1065

Asn His Arg Glu Lys Ser Val Cys Tyr Leu Gly Val Thr Ser Val  
 1070 1075 1080

Asn Arg Arg Glu Ser Gly Val Leu Leu Thr Gly Glu Ala Gly Ile  
 1085 1090 1095

Leu Cys Thr Phe Pro Ala Gln Cys Leu Phe Ser Asp Ile Arg Ile  
 1100 1105 1110

Leu Gln Glu Arg Cys Ser His Phe Val Glu Asn Asn Leu Ser Leu  
 1115 1120 1125

Gly Thr Ser Gly Glu Asn Phe Val Pro Tyr Met Pro Gln Phe Gln  
 1130 1135 1140

Thr Cys Ser Thr His Ser His Lys Ile Met Glu Asn Lys Met Cys  
 1145 1150 1155

Asp Leu Thr Val  
 1160

<210> 66  
 <211> 892  
 <212> PRT  
 <213> Mus musculus

<400> 66

Met	Met	Cys	Gln	Lys	Phe	Tyr	Val	Val	Leu	Leu	His	Trp	Glu	Phe	Leu	1	5	10	15
Tyr	Val	Ile	Ala	Ala	Leu	Asn	Leu	Ala	Tyr	Pro	Ile	Ser	Pro	Trp	Lys	20	25	30	
Phe	Lys	Leu	Phe	Cys	Gly	Pro	Pro	Asn	Thr	Thr	Asp	Asp	Ser	Phe	Leu	35	40	45	
Ser	Pro	Ala	Gly	Ala	Pro	Asn	Asn	Ala	Ser	Ala	Leu	Lys	Gly	Ala	Ser	50	55	60	
Glu	Ala	Ile	Val	Glu	Ala	Lys	Phe	Asn	Ser	Ser	Gly	Ile	Tyr	Val	Pro	65	70	75	80
Glu	Leu	Ser	Lys	Thr	Val	Phe	His	Cys	Cys	Phe	Gly	Asn	Glu	Gln	Gly	85	90	95	
Gln	Asn	Cys	Ser	Ala	Leu	Thr	Asp	Asn	Thr	Glu	Gly	Lys	Thr	Leu	Ala	100	105	110	
Ser	Val	Val	Lys	Ala	Ser	Val	Phe	Arg	Gln	Leu	Gly	Val	Asn	Trp	Asp	115	120	125	
Ile	Glu	Cys	Trp	Met	Lys	Gly	Asp	Leu	Thr	Leu	Phe	Ile	Cys	His	Met	130	135	140	
Glu	Pro	Leu	Pro	Lys	Asn	Pro	Phe	Lys	Asn	Tyr	Asp	Ser	Lys	Val	His	145	150	155	160
Leu	Leu	Tyr	Asp	Leu	Pro	Glu	Val	Ile	Asp	Asp	Ser	Pro	Leu	Pro	Pro	165	170	175	
Leu	Lys	Asp	Ser	Phe	Gln	Thr	Val	Gln	Cys	Asn	Cys	Ser	Leu	Arg	Gly	180	185	190	
Cys	Glu	Cys	His	Val	Pro	Val	Pro	Arg	Ala	Lys	Leu	Asn	Tyr	Ala	Leu	195	200	205	
Leu	Met	Tyr	Leu	Glu	Ile	Thr	Ser	Ala	Gly	Val	Ser	Phe	Gln	Ser	Pro	210	215	220	

Leu Met Ser Leu Gln Pro Met Leu Val Val Lys Pro Asp Pro Pro Leu  
225 230 235 240

Gly Leu His Met Glu Val Thr Asp Asp Gly Asn Leu Lys Ile Ser Trp  
245 250 255

Asp Ser Gln Thr Met Ala Pro Phe Pro Leu Gln Tyr Gln Val Lys Tyr  
260 265 270

Leu Glu Asn Ser Thr Ile Val Arg Glu Ala Ala Glu Ile Val Ser Ala  
275 280 285

Thr Ser Leu Leu Val Asp Ser Val Leu Pro Gly Ser Ser Tyr Glu Val  
290 295 300

Gln Val Arg Ser Lys Arg Leu Asp Gly Ser Gly Val Trp Ser Asp Trp  
305 310 315 320

Ser Ser Pro Gln Val Phe Thr Thr Gln Asp Val Val Tyr Phe Pro Pro  
325 330 335

Lys Ile Leu Thr Ser Val Gly Ser Asn Ala Ser Phe His Cys Ile Tyr  
340 345 350

Lys Asn Glu Asn Gln Ile Ile Ser Ser Lys Gln Ile Val Trp Trp Arg  
355 360 365

Asn Leu Ala Glu Lys Ile Pro Glu Ile Gln Tyr Ser Ile Val Ser Asp  
370 375 380

Arg Val Ser Lys Val Thr Phe Ser Asn Leu Lys Ala Thr Arg Pro Arg  
385 390 395 400

Gly Lys Phe Thr Tyr Asp Ala Val Tyr Cys Cys Asn Glu Gln Ala Cys  
405 410 415

His His Arg Tyr Ala Glu Leu Tyr Val Ile Asp Val Asn Ile Asn Ile  
420 425 430

Ser Cys Glu Thr Asp Gly Tyr Leu Thr Lys Met Thr Cys Arg Trp Ser  
435 440 445

Pro Ser Thr Ile Gln Ser Leu Val Gly Ser Thr Val Gln Leu Arg Tyr

450

455

460

His Arg Arg Ser Leu Tyr Cys Pro Asp Ser Pro Ser Ile His Pro Thr  
465 470 475 480

Ser Glu Pro Lys Asn Cys Val Leu Gln Arg Asp Gly Phe Tyr Glu Cys  
485 490 495

Val Phe Gln Pro Ile Phe Leu Leu Ser Gly Tyr Thr Met Trp Ile Arg  
500 505 510

Ile Asn His Ser Leu Gly Ser Leu Asp Ser Pro Pro Thr Cys Val Leu  
515 520 525

Pro Asp Ser Val Val Lys Pro Leu Pro Pro Ser Asn Val Lys Ala Glu  
530 535 540

Ile Thr Val Asn Thr Gly Leu Leu Lys Val Ser Trp Glu Lys Pro Val  
545 550 555 560

Phe Pro Glu Asn Asn Leu Gln Phe Gln Ile Arg Tyr Gly Leu Ser Gly  
565 570 575

Lys Glu Ile Gln Trp Lys Thr His Glu Val Phe Asp Ala Lys Ser Lys  
580 585 590

Ser Ala Ser Leu Leu Val Ser Asp Leu Cys Ala Val Tyr Val Val Gln  
595 600 605

Val Arg Cys Arg Arg Leu Asp Gly Leu Gly Tyr Trp Ser Asn Trp Ser  
610 615 620

Ser Pro Ala Tyr Thr Leu Val Met Asp Val Lys Val Pro Met Arg Gly  
625 630 635 640

Pro Glu Phe Trp Arg Lys Met Asp Gly Asp Val Thr Lys Lys Glu Arg  
645 650 655

Asn Val Thr Leu Leu Trp Lys Pro Leu Thr Lys Asn Asp Ser Leu Cys  
660 665 670

Ser Val Arg Arg Tyr Val Val Lys His Arg Thr Ala His Asn Gly Thr  
675 680 685



Trp Ser Glu Asp Val Gly Asn Arg Thr Asn Leu Thr Phe Leu Trp Thr  
690 695 700

Glu Pro Ala His Thr Val Thr Val Leu Ala Val Asn Ser Leu Gly Ala  
705 710 715 720

Ser Leu Val Asn Phe Asn Leu Thr Phe Ser Trp Pro Met Ser Lys Val  
725 730 735

Ser Ala Val Glu Ser Leu Ser Ala Tyr Pro Leu Ser Ser Ser Cys Val  
740 745 750

Ile Leu Ser Trp Thr Leu Ser Pro Asp Asp Tyr Ser Leu Leu Tyr Leu  
755 760 765

Val Ile Glu Trp Lys Ile Leu Asn Glu Asp Asp Gly Met Lys Trp Leu  
770 775 780

Arg Ile Pro Ser Asn Val Lys Lys Phe Tyr Ile His Asp Asn Phe Ile  
785 790 795 800

Pro Ile Glu Lys Tyr Gln Phe Ser Leu Tyr Pro Val Phe Met Glu Gly  
805 810 815

Val Gly Lys Pro Lys Ile Ile Asn Gly Phe Thr Lys Asp Ala Ile Asp  
820 825 830

Lys Gln Gln Asn Asp Ala Gly Leu Tyr Val Ile Val Pro Ile Ile Ile  
835 840 845

Ser Ser Cys Val Leu Leu Leu Gly Thr Leu Leu Ile Ser His Gln Arg  
850 855 860

Met Lys Lys Leu Phe Trp Asp Asp Val Pro Asn Pro Lys Asn Cys Ser  
865 870 875 880

Trp Ala Gln Gly Leu Asn Phe Gln Lys Val Thr Val  
885 890

<210> 67  
<211> 231  
<212> PRT

<213> Mus musculus

<400> 67

Pro Leu Thr Lys Asn Asp Ser Leu Cys Ser Val Arg Arg Tyr Val Val  
1 5 10 15

Lys His Arg Thr Ala His Asn Gly Thr Trp Ser Glu Asp Val Gly Asn  
20 25 30

Arg Thr Asn Leu Thr Phe Leu Trp Thr Glu Pro Ala His Thr Val Thr  
35 40 45

Val Leu Ala Val Asn Ser Leu Gly Ala Ser Leu Val Asn Phe Asn Leu  
50 55 60

Thr Phe Ser Trp Pro Met Ser Lys Val Ser Ala Val Glu Ser Leu Ser  
65 70 75 80

Ala Tyr Pro Leu Ser Ser Ser Cys Val Ile Leu Ser Trp Thr Leu Ser  
85 90 95

Pro Asp Asp Tyr Ser Leu Leu Tyr Leu Val Ile Glu Trp Lys Ile Leu  
100 105 110

Asn Glu Asp Asp Gly Met Lys Trp Leu Arg Ile Pro Ser Asn Val Lys  
115 120 125

Lys Phe Tyr Ile His Asp Asn Phe Ile Pro Ile Glu Lys Tyr Gln Phe  
130 135 140

Ser Leu Tyr Pro Val Phe Met Glu Gly Val Gly Lys Pro Lys Ile Ile  
145 150 155 160

Asn Gly Phe Thr Lys Asp Ala Ile Asp Lys Gln Gln Asn Asp Ala Gly  
165 170 175

Leu Tyr Val Ile Val Pro Ile Ile Ile Ser Ser Cys Val Leu Leu Leu  
180 185 190

Gly Thr Leu Leu Ile Ser His Gln Arg Met Lys Lys Leu Phe Trp Asp  
195 200 205

Asp Val Pro Asn Pro Lys Asn Cys Ser Trp Ala Gln Gly Leu Asn Phe

210

215

220

Gln Lys Arg Thr Asp Thr Leu  
225 230

<210> 68  
<211> 499  
<212> PRT  
<213> Mus musculus

<400> 68

Pro Leu Thr Lys Asn Asp Ser Leu Cys Ser Val Arg Arg Tyr Val Val  
1 5 10 15

Lys His Arg Thr Ala His Asn Gly Thr Trp Ser Glu Asp Val Gly Asn  
20 25 30

Arg Thr Asn Leu Thr Phe Leu Trp Thr Glu Pro Ala His Thr Val Thr  
35 40 45

Val Leu Ala Val Asn Ser Leu Gly Ala Ser Leu Val Asn Phe Asn Leu  
50 55 60

Thr Phe Ser Trp Pro Met Ser Lys Val Ser Ala Val Glu Ser Leu Ser  
65 70 75 80

Ala Tyr Pro Leu Ser Ser Ser Cys Val Ile Leu Ser Trp Thr Leu Ser  
85 90 95

Pro Asp Asp Tyr Ser Leu Leu Tyr Leu Val Ile Glu Trp Lys Ile Leu  
100 105 110

Asn Glu Asp Asp Gly Met Lys Trp Leu Arg Ile Pro Ser Asn Val Lys  
115 120 125

Lys Phe Tyr Ile His Asp Asn Phe Ile Pro Ile Glu Lys Tyr Gln Phe  
130 135 140

Ser Leu Tyr Pro Val Phe Met Glu Gly Val Gly Lys Pro Lys Ile Ile  
145 150 155 160

Asn Gly Phe Thr Lys Asp Ala Ile Asp Lys Gln Gln Asn Asp Ala Gly  
165 170 175

Leu Tyr Val Ile Val Pro Ile Ile Ile Ser Ser Cys Val Leu Leu Leu  
 180 185 190

Gly Thr Leu Leu Ile Ser His Gln Arg Met Lys Lys Leu Phe Trp Asp  
 195 200 205

Asp Val Pro Asn Pro Lys Asn Cys Ser Trp Ala Gln Gly Leu Asn Phe  
 210 215 220

Gln Lys Pro Glu Thr Phe Glu Gln Leu Phe Thr Lys His Ala Glu Ser  
 225 230 235 240

Val Ile Phe Gly Pro Leu Leu Leu Glu Pro Glu Pro Ile Ser Glu Glu  
 245 250 255

Ile Ser Val Asp Thr Ala Trp Lys Asn Lys Asp Glu Met Val Pro Ala  
 260 265 270

Ala Met Val Ser Leu Leu Leu Thr Thr Pro Asp Pro Glu Ser Ser Ser  
 275 280 285

Ile Cys Ile Ser Asp Gln Cys Asn Ser Ala Asn Phe Ser Gly Ser Gln  
 290 295 300

Ser Thr Gln Val Thr Cys Glu Asp Glu Cys Gln Arg Gln Pro Ser Val  
 305 310 315 320

Lys Tyr Ala Thr Leu Val Ser Asn Asp Lys Leu Val Glu Thr Asp Glu  
 325 330 335

Glu Gln Gly Phe Ile His Ser Pro Val Ser Asn Cys Ile Ser Ser Asn  
 340 345 350

His Ser Pro Leu Arg Gln Ser Phe Ser Ser Ser Ser Trp Glu Thr Glu  
 355 360 365

Ala Gln Thr Phe Phe Leu Leu Ser Asp Gln Gln Pro Thr Met Ile Ser  
 370 375 380

Pro Gln Leu Ser Phe Ser Gly Leu Asp Glu Leu Leu Glu Leu Glu Gly  
 385 390 395 400

Ser Phe Pro Glu Glu Asn His Arg Glu Lys Ser Val Cys Tyr Leu Gly  
405 410 415

Val Thr Ser Val Asn Arg Arg Glu Ser Gly Val Leu Leu Thr Gly Glu  
420 425 430

Ala Gly Ile Leu Cys Thr Phe Pro Ala Gln Cys Leu Phe Ser Asp Ile  
435 440 445

Arg Ile Leu Gln Glu Arg Cys Ser His Phe Val Glu Asn Asn Leu Ser  
450 455 460

Leu Gly Thr Ser Gly Glu Asn Phe Val Pro Tyr Met Pro Gln Phe Gln  
465 470 475 480

Thr Cys Ser Thr His Ser His Lys Ile Met Glu Asn Lys Met Cys Asp  
485 490 495

Leu Thr Val

<210> 69  
<211> 229  
<212> PRT  
<213> Mus musculus

<400> 69

Pro Leu Thr Lys Asn Asp Ser Leu Cys Ser Val Arg Arg Tyr Val Val  
1 5 10 15

Lys His Arg Thr Ala His Asn Gly Thr Trp Ser Glu Asp Val Gly Asn  
20 25 30

Arg Thr Asn Leu Thr Phe Leu Trp Thr Glu Pro Ala His Thr Val Thr  
35 40 45

Val Leu Ala Val Asn Ser Leu Gly Ala Ser Leu Val Asn Phe Asn Leu  
50 55 60

Thr Phe Ser Trp Pro Met Ser Lys Val Ser Ala Val Glu Ser Leu Ser  
65 70 75 80

Ala Tyr Pro Leu Ser Ser Ser Cys Val Ile Leu Ser Trp Thr Leu Ser  
85 90 95

Pro Asp Asp Tyr Ser Leu Leu Tyr Leu Val Ile Glu Trp Lys Ile Leu  
100 105 110

Asn Glu Asp Asp Gly Met Lys Trp Leu Arg Ile Pro Ser Asn Val Lys  
115 120 125

Lys Phe Tyr Ile His Asp Asn Phe Ile Pro Ile Glu Lys Tyr Gln Phe  
130 135 140

Ser Leu Tyr Pro Val Phe Met Glu Gly Val Gly Lys Pro Lys Ile Ile  
145 150 155 160

Asn Gly Phe Thr Lys Asp Ala Ile Asp Lys Gln Gln Asn Asp Ala Gly  
165 170 175

Leu Tyr Val Ile Val Pro Ile Ile Ile Ser Ser Cys Val Leu Leu Leu  
180 185 190

Gly Thr Leu Leu Ile Ser His Gln Arg Met Lys Lys Leu Phe Trp Asp  
195 200 205

Asp Val Pro Asn Pro Lys Asn Cys Ser Trp Ala Gln Gly Leu Asn Phe  
210 215 220

Gln Lys Val Thr Val  
225

<210> 70  
<211> 237  
<212> PRT  
<213> Mus musculus

<400> 70

Pro Leu Thr Lys Asn Asp Ser Leu Cys Ser Val Arg Arg Tyr Val Val  
1 5 10 15

Lys His Arg Thr Ala His Asn Gly Thr Trp Ser Glu Asp Val Gly Asn  
20 25 30

Arg Thr Asn Leu Thr Phe Leu Trp Thr Glu Pro Ala His Thr Val Thr  
35 40 45

Val Leu Ala Val Asn Ser Leu Gly Ala Ser Leu Val Asn Phe Asn Leu  
50 55 60

Thr Phe Ser Trp Pro Met Ser Lys Val Ser Ala Val Glu Ser Leu Ser  
65 70 75 80

Ala Tyr Pro Leu Ser Ser Ser Cys Val Ile Leu Ser Trp Thr Leu Ser  
85 90 95

Pro Asp Asp Tyr Ser Leu Leu Tyr Leu Val Ile Glu Trp Lys Ile Leu  
100 105 110

Asn Glu Asp Asp Gly Met Lys Trp Leu Arg Ile Pro Ser Asn Val Lys  
115 120 125

Lys Phe Tyr Ile His Asp Asn Phe Ile Pro Ile Glu Lys Tyr Gln Phe  
130 135 140

Ser Leu Tyr Pro Val Phe Met Glu Gly Val Gly Lys Pro Lys Ile Ile  
145 150 155 160

Asn Gly Phe Thr Lys Asp Ala Ile Asp Lys Gln Gln Asn Asp Ala Gly  
165 170 175

Leu Tyr Val Ile Val Pro Ile Ile Ile Ser Ser Cys Val Leu Leu Leu  
180 185 190

Gly Thr Leu Leu Ile Ser His Gln Arg Met Lys Lys Leu Phe Trp Asp  
195 200 205

Asp Val Pro Asn Pro Lys Asn Cys Ser Trp Ala Gln Gly Leu Asn Phe  
210 215 220

Gln Lys Asp Ile Ser Leu His Glu Val Phe Ile Phe Arg  
225 230 235

<210> 71  
<211> 162  
<212> PRT  
<213> Mus musculus

<400> 71

Met Ser Lys Val Ser Ala Val Glu Ser Leu Ser Ala Tyr Pro Leu Ser  
1 5 10 15

Ser Ser Cys Val Ile Leu Ser Trp Thr Leu Ser Pro Asp Asp Tyr Ser  
20 25 30

Leu Leu Tyr Leu Val Ile Glu Trp Lys Ile Leu Asn Glu Asp Asp Gly  
35 40 45

Met Lys Trp Leu Arg Ile Pro Ser Asn Val Lys Lys Phe Tyr Ile His  
50 55 60

Asp Asn Phe Ile Pro Ile Glu Lys Tyr Gln Phe Ser Leu Tyr Pro Val  
65 70 75 80

Phe Met Glu Gly Val Gly Lys Pro Lys Ile Ile Asn Gly Phe Thr Lys  
85 90 95

Asp Ala Ile Asp Lys Gln Gln Asn Asp Ala Gly Leu Tyr Val Ile Val  
100 105 110

Pro Ile Ile Ile Ser Ser Cys Val Leu Leu Leu Gly Thr Leu Leu Ile  
115 120 125

Ser His Gln Arg Met Lys Lys Leu Phe Trp Asp Asp Val Pro Asn Pro  
130 135 140

Lys Asn Cys Ser Trp Ala Gln Gly Leu Asn Phe Gln Lys Arg Thr Asp  
145 150 155 160

Thr Leu

<210> 72  
<211> 430  
<212> PRT  
<213> Mus musculus

<400> 72

Met Ser Lys Val Ser Ala Val Glu Ser Leu Ser Ala Tyr Pro Leu Ser  
1 5 10 15

Ser Ser Cys Val Ile Leu Ser Trp Thr Leu Ser Pro Asp Asp Tyr Ser  
20 25 30



Leu Leu Tyr Leu Val Ile Glu Trp Lys Ile Leu Asn Glu Asp Asp Gly  
35 40 45

Met Lys Trp Leu Arg Ile Pro Ser Asn Val Lys Lys Phe Tyr Ile His  
50 55 60

Asp Asn Phe Ile Pro Ile Glu Lys Tyr Gln Phe Ser Leu Tyr Pro Val  
65 70 75 80

Phe Met Glu Gly Val Gly Lys Pro Lys Ile Ile Asn Gly Phe Thr Lys  
85 90 95

Asp Ala Ile Asp Lys Gln Gln Asn Asp Ala Gly Leu Tyr Val Ile Val  
100 105 110

Pro Ile Ile Ile Ser Ser Cys Val Leu Leu Leu Gly Thr Leu Leu Ile  
115 120 125

Ser His Gln Arg Met Lys Lys Leu Phe Trp Asp Asp Val Pro Asn Pro  
130 135 140

Lys Asn Cys Ser Trp Ala Gln Gly Leu Asn Phe Gln Lys Pro Glu Thr  
145 150 155 160

Phe Glu Gln Leu Phe Thr Lys His Ala Glu Ser Val Ile Phe Gly Pro  
165 170 175

Leu Leu Leu Glu Pro Glu Pro Ile Ser Glu Glu Ile Ser Val Asp Thr  
180 185 190

Ala Trp Lys Asn Lys Asp Glu Met Val Pro Ala Ala Met Val Ser Leu  
195 200 205

Leu Leu Thr Thr Pro Asp Pro Glu Ser Ser Ser Ile Cys Ile Ser Asp  
210 215 220

Gln Cys Asn Ser Ala Asn Phe Ser Gly Ser Gln Ser Thr Gln Val Thr  
225 230 235 240

Cys Glu Asp Glu Cys Gln Arg Gln Pro Ser Val Lys Tyr Ala Thr Leu  
245 250 255

Val Ser Asn Asp Lys Leu Val Glu Thr Asp Glu Glu Gln Gly Phe Ile

260

265

270

His Ser Pro Val Ser Asn Cys Ile Ser Ser Asn His Ser Pro Leu Arg  
 275 280 285

Gln Ser Phe Ser Ser Ser Ser Trp Glu Thr Glu Ala Gln Thr Phe Phe  
 290 295 300

Leu Leu Ser Asp Gln Gln Pro Thr Met Ile Ser Pro Gln Leu Ser Phe  
 305 310 315 320

Ser Gly Leu Asp Glu Leu Leu Glu Leu Glu Gly Ser Phe Pro Glu Glu  
 325 330 335

Asn His Arg Glu Lys Ser Val Cys Tyr Leu Gly Val Thr Ser Val Asn  
 340 345 350

Arg Arg Glu Ser Gly Val Leu Leu Thr Gly Glu Ala Gly Ile Leu Cys  
 355 360 365

Thr Phe Pro Ala Gln Cys Leu Phe Ser Asp Ile Arg Ile Leu Gln Glu  
 370 375 380

Arg Cys Ser His Phe Val Glu Asn Asn Leu Ser Leu Gly Thr Ser Gly  
 385 390 395 400

Glu Asn Phe Val Pro Tyr Met Pro Gln Phe Gln Thr Cys Ser Thr His  
 405 410 415

Ser His Lys Ile Met Glu Asn Lys Met Cys Asp Leu Thr Val  
 420 425 430

&lt;210&gt; 73

&lt;211&gt; 160

&lt;212&gt; PRT

&lt;213&gt; Mus musculus

&lt;400&gt; 73

Met Ser Lys Val Ser Ala Val Glu Ser Leu Ser Ala Tyr Pro Leu Ser  
 1 5 10 15

Ser Ser Cys Val Ile Leu Ser Trp Thr Leu Ser Pro Asp Asp Tyr Ser  
 20 25 30

Leu Leu Tyr Leu Val Ile Glu Trp Lys Ile Leu Asn Glu Asp Asp Gly  
35 40 45

Met Lys Trp Leu Arg Ile Pro Ser Asn Val Lys Lys Phe Tyr Ile His  
50 55 60

Asp Asn Phe Ile Pro Ile Glu Lys Tyr Gln Phe Ser Leu Tyr Pro Val  
65 70 75 80

Phe Met Glu Gly Val Gly Lys Pro Lys Ile Ile Asn Gly Phe Thr Lys  
85 90 95

Asp Ala Ile Asp Lys Gln Gln Asn Asp Ala Gly Leu Tyr Val Ile Val  
100 105 110

Pro Ile Ile Ile Ser Ser Cys Val Leu Leu Leu Gly Thr Leu Leu Ile  
115 120 125

Ser His Gln Arg Met Lys Lys Leu Phe Trp Asp Asp Val Pro Asn Pro  
130 135 140

Lys Asn Cys Ser Trp Ala Gln Gly Leu Asn Phe Gln Lys Val Thr Val  
145 150 155 160

<210> 74  
<211> 168  
<212> PRT  
<213> Mus musculus

<400> 74

Met Ser Lys Val Ser Ala Val Glu Ser Leu Ser Ala Tyr Pro Leu Ser  
1 5 10 15

Ser Ser Cys Val Ile Leu Ser Trp Thr Leu Ser Pro Asp Asp Tyr Ser  
20 25 30

Leu Leu Tyr Leu Val Ile Glu Trp Lys Ile Leu Asn Glu Asp Asp Gly  
35 40 45

Met Lys Trp Leu Arg Ile Pro Ser Asn Val Lys Lys Phe Tyr Ile His  
50 55 60

Asp Asn Phe Ile Pro Ile Glu Lys Tyr Gln Phe Ser Leu Tyr Pro Val

65

70

75

80

Phe Met Glu Gly Val Gly Lys Pro Lys Ile Ile Asn Gly Phe Thr Lys  
85 90 95

Asp Ala Ile Asp Lys Gln Gln Asn Asp Ala Gly Leu Tyr Val Ile Val  
100 105 110

Pro Ile Ile Ile Ser Ser Cys Val Leu Leu Leu Gly Thr Leu Leu Ile  
115 120 125

Ser His Gln Arg Met Lys Lys Leu Phe Trp Asp Asp Val Pro Asn Pro  
130 135 140

Lys Asn Cys Ser Trp Ala Gln Gly Leu Asn Phe Gln Lys Asp Ile Ser  
145 150 155 160

Leu His Glu Val Phe Ile Phe Arg  
165

<210> 75

<211> 142

<212> PRT

<213> Mus musculus

<400> 75

Pro Leu Thr Lys Asn Asp Ser Leu Cys Ser Val Arg Arg Tyr Val Val  
1 5 10 15

Lys His Arg Thr Ala His Asn Gly Thr Trp Ser Glu Asp Val Gly Asn  
20 25 30

Arg Thr Asn Leu Thr Phe Leu Trp Thr Glu Pro Ala His Thr Val Thr  
35 40 45

Val Leu Ala Val Asn Ser Leu Gly Ala Ser Leu Val Asn Phe Asn Leu  
50 55 60

Thr Phe Ser Trp Pro Met Ser Lys Val Ser Ala Val Glu Ser Leu Ser  
65 70 75 80

Ala Tyr Pro Leu Ser Ser Ser Cys Val Ile Leu Ser Trp Thr Leu Ser  
85 90 95

Pro Asp Asp Tyr Ser Leu Leu Tyr Leu Val Ile Glu Trp Lys Ile Leu  
100 105 110

Asn Glu Asp Asp Gly Met Lys Trp Leu Arg Ile Pro Ser Asn Val Lys  
115 120 125

Lys Phe Tyr Ile His Gly Met Cys Thr Val Leu Phe Met Asp  
130 135 140

<210> 76  
<211> 142  
<212> PRT  
<213> Mus musculus

<400> 76

Pro Leu Thr Lys Asn Asp Ser Leu Cys Ser Val Arg Arg Tyr Val Val  
1 5 10 15

Lys His Arg Thr Ala His Asn Gly Thr Trp Ser Glu Asp Val Gly Asn  
20 25 30

Arg Thr Asn Leu Thr Phe Leu Trp Thr Glu Pro Ala His Thr Val Thr  
35 40 45

Val Leu Ala Val Asn Ser Leu Gly Ala Ser Leu Val Asn Phe Asn Leu  
50 55 60

Thr Phe Ser Trp Pro Met Ser Lys Val Ser Ala Val Glu Ser Leu Ser  
65 70 75 80

Ala Tyr Pro Leu Ser Ser Ser Cys Val Ile Leu Ser Trp Thr Leu Ser  
85 90 95

Pro Asp Asp Tyr Ser Leu Leu Tyr Leu Val Ile Glu Trp Lys Ile Leu  
100 105 110

Asn Glu Asp Asp Gly Met Lys Trp Leu Arg Ile Pro Ser Asn Val Lys  
115 120 125

Lys Phe Tyr Ile His Gly Met Cys Thr Val Leu Phe Met Asp  
130 135 140

<210> 77

<211> 142  
<212> PRT  
<213> Mus musculus

<400> 77

Pro Leu Thr Lys Asn Asp Ser Leu Cys Ser Val Arg Arg Tyr Val Val  
1 5 10 15

Lys His Arg Thr Ala His Asn Gly Thr Trp Ser Glu Asp Val Gly Asn  
20 25 30

Arg Thr Asn Leu Thr Phe Leu Trp Thr Glu Pro Ala His Thr Val Thr  
35 40 45

Val Leu Ala Val Asn Ser Leu Gly Ala Ser Leu Val Asn Phe Asn Leu  
50 55 60

Thr Phe Ser Trp Pro Met Ser Lys Val Ser Ala Val Glu Ser Leu Ser  
65 70 75 80

Ala Tyr Pro Leu Ser Ser Ser Cys Val Ile Leu Ser Trp Thr Leu Ser  
85 90 95

Pro Asp Asp Tyr Ser Leu Leu Tyr Leu Val Ile Glu Trp Lys Ile Leu  
100 105 110

Asn Glu Asp Asp Gly Met Lys Trp Leu Arg Ile Pro Ser Asn Val Lys  
115 120 125

Lys Phe Tyr Ile His Gly Met Cys Thr Val Leu Phe Met Asp  
130 135 140

<210> 78  
<211> 142  
<212> PRT  
<213> Mus musculus

<400> 78

Pro Leu Thr Lys Asn Asp Ser Leu Cys Ser Val Arg Arg Tyr Val Val  
1 5 10 15

Lys His Arg Thr Ala His Asn Gly Thr Trp Ser Glu Asp Val Gly Asn  
20 25 30

Arg Thr Asn Leu Thr Phe Leu Trp Thr Glu Pro Ala His Thr Val Thr  
35 40 45

Val Leu Ala Val Asn Ser Leu Gly Ala Ser Leu Val Asn Phe Asn Leu  
50 55 60

Thr Phe Ser Trp Pro Met Ser Lys Val Ser Ala Val Glu Ser Leu Ser  
65 70 75 80

Ala Tyr Pro Leu Ser Ser Ser Cys Val Ile Leu Ser Trp Thr Leu Ser  
85 90 95

Pro Asp Asp Tyr Ser Leu Leu Tyr Leu Val Ile Glu Trp Lys Ile Leu  
100 105 110

Asn Glu Asp Asp Gly Met Lys Trp Leu Arg Ile Pro Ser Asn Val Lys  
115 120 125

Lys Phe Tyr Ile His Gly Met Cys Thr Val Leu Phe Met Asp  
130 135 140

<210> 79  
<211> 73  
<212> PRT  
<213> Mus musculus

<400> 79

Met Ser Lys Val Ser Ala Val Glu Ser Leu Ser Ala Tyr Pro Leu Ser  
1 5 10 15

Ser Ser Cys Val Ile Leu Ser Trp Thr Leu Ser Pro Asp Asp Tyr Ser  
20 25 30

Leu Leu Tyr Leu Val Ile Glu Trp Lys Ile Leu Asn Glu Asp Asp Gly  
35 40 45

Met Lys Trp Leu Arg Ile Pro Ser Asn Val Lys Lys Phe Tyr Ile His  
50 55 60

Gly Met Cys Thr Val Leu Phe Met Asp  
65 70

<210> 80  
<211> 889

<212> PRT  
<213> Mus musculus

<400> 80

Met Met Cys Gln Lys Phe Tyr Val Val Leu Leu His Trp Glu Phe Leu  
1 5 10 15

Tyr Val Ile Ala Ala Leu Asn Leu Ala Tyr Pro Ile Ser Pro Trp Lys  
20 25 30

Phe Lys Leu Phe Cys Gly Pro Pro Asn Thr Thr Asp Asp Ser Phe Leu  
35 40 45

Ser Pro Ala Gly Ala Pro Asn Asn Ala Ser Ala Leu Lys Gly Ala Ser  
50 55 60

Glu Ala Ile Val Glu Ala Lys Phe Asn Ser Ser Gly Ile Tyr Val Pro  
65 70 75 80

Glu Leu Ser Lys Thr Val Phe His Cys Cys Phe Gly Asn Glu Gln Gly  
85 90 95

Gln Asn Cys Ser Ala Leu Thr Asp Asn Thr Glu Gly Lys Thr Leu Ala  
100 105 110

Ser Val Val Lys Ala Ser Val Phe Arg Gln Leu Gly Val Asn Trp Asp  
115 120 125

Ile Glu Cys Trp Met Lys Gly Asp Leu Thr Leu Phe Ile Cys His Met  
130 135 140

Glu Pro Leu Pro Lys Asn Pro Phe Lys Asn Tyr Asp Ser Lys Val His  
145 150 155 160

Leu Leu Tyr Asp Leu Pro Glu Val Ile Asp Asp Ser Pro Leu Pro Pro  
165 170 175

Leu Lys Asp Ser Phe Gln Thr Val Gln Cys Asn Cys Ser Leu Arg Gly  
180 185 190

Cys Glu Cys His Val Pro Val Pro Arg Ala Lys Leu Asn Tyr Ala Leu  
195 200 205



Leu Met Tyr Leu Glu Ile Thr Ser Ala Gly Val Ser Phe Gln Ser Pro  
210 215 220

Leu Met Ser Leu Gln Pro Met Leu Val Val Lys Pro Asp Pro Pro Leu  
225 230 235 240

Gly Leu His Met Glu Val Thr Asp Asp Gly Asn Leu Lys Ile Ser Trp  
245 250 255

Asp Ser Gln Thr Met Ala Pro Phe Pro Leu Gln Tyr Gln Val Lys Tyr  
260 265 270

Leu Glu Asn Ser Thr Ile Val Arg Glu Ala Ala Glu Ile Val Ser Ala  
275 280 285

Thr Ser Leu Leu Val Asp Ser Val Leu Pro Gly Ser Ser Tyr Glu Val  
290 295 300

Gln Val Arg Ser Lys Arg Leu Asp Gly Ser Gly Val Trp Ser Asp Trp  
305 310 315 320

Ser Ser Pro Gln Val Phe Thr Thr Gln Asp Val Val Tyr Phe Pro Pro  
325 330 335

Lys Ile Leu Thr Ser Val Gly Ser Asn Ala Ser Phe His Cys Ile Tyr  
340 345 350

Lys Asn Glu Asn Gln Ile Ile Ser Ser Lys Gln Ile Val Trp Trp Arg  
355 360 365

Asn Leu Ala Glu Lys Ile Pro Glu Ile Gln Tyr Ser Ile Val Ser Asp  
370 375 380

Arg Val Ser Lys Val Thr Phe Ser Asn Leu Lys Ala Thr Arg Pro Arg  
385 390 395 400

Gly Lys Phe Thr Tyr Asp Ala Val Tyr Cys Cys Asn Glu Gln Ala Cys  
405 410 415

His His Arg Tyr Ala Glu Leu Tyr Val Ile Asp Val Asn Ile Asn Ile  
420 425 430

Ser Cys Glu Thr Asp Gly Tyr Leu Thr Lys Met Thr Cys Arg Trp Ser

435		440		445
Pro Ser Thr Ile Gln Ser Leu Val Gly Ser Thr Val Gln Leu Arg Tyr				
450		455		460
His Arg Arg Ser Leu Tyr Cys Pro Asp Ser Pro Ser Ile His Pro Thr				
465		470		475
				480
Ser Glu Pro Lys Asn Cys Val Leu Gln Arg Asp Gly Phe Tyr Glu Cys				
		485		490
				495
Val Phe Gln Pro Ile Phe Leu Leu Ser Gly Tyr Thr Met Trp Ile Arg				
		500		505
				510
Ile Asn His Ser Leu Gly Ser Leu Asp Ser Pro Pro Thr Cys Val Leu				
		515		520
				525
Pro Asp Ser Val Val Lys Pro Leu Pro Pro Ser Asn Val Lys Ala Glu				
		530		535
				540
Ile Thr Val Asn Thr Gly Leu Leu Lys Val Ser Trp Glu Lys Pro Val				
545		550		555
				560
Phe Pro Glu Asn Asn Leu Gln Phe Gln Ile Arg Tyr Gly Leu Ser Gly				
		565		570
				575
Lys Glu Ile Gln Trp Lys Thr His Glu Val Phe Asp Ala Lys Ser Lys				
		580		585
				590
Ser Ala Ser Leu Leu Val Ser Asp Leu Cys Ala Val Tyr Val Val Gln				
		595		600
				605
Val Arg Cys Arg Arg Leu Asp Gly Leu Gly Tyr Trp Ser Asn Trp Ser				
		610		615
				620
Ser Pro Ala Tyr Thr Leu Val Met Asp Val Lys Val Pro Met Arg Gly				
		625		630
				635
				640
Pro Glu Phe Trp Arg Lys Met Asp Gly Asp Val Thr Lys Lys Glu Arg				
		645		650
				655
Asn Val Thr Leu Leu Trp Lys Pro Leu Thr Lys Asn Asp Ser Leu Cys				
		660		665
				670

Ser Val Arg Arg Tyr Val Val Lys His Arg Thr Ala His Asn Gly Thr  
675 680 685

Trp Ser Glu Asp Val Gly Asn Arg Thr Asn Leu Thr Phe Leu Trp Thr  
690 695 700

Glu Pro Ala His Thr Val Thr Val Leu Ala Val Asn Ser Leu Gly Ala  
705 710 715 720

Ser Leu Val Asn Phe Asn Leu Thr Phe Ser Trp Pro Met Ser Lys Val  
725 730 735

Ser Ala Val Glu Ser Leu Ser Ala Tyr Pro Leu Ser Ser Ser Cys Val  
740 745 750

Ile Leu Ser Trp Thr Leu Ser Pro Asp Asp Tyr Ser Leu Leu Tyr Leu  
755 760 765

Val Ile Glu Trp Lys Ile Leu Asn Glu Asp Asp Gly Met Lys Trp Leu  
770 775 780

Arg Ile Pro Ser Asn Val Lys Lys Phe Tyr Ile His Asp Asn Phe Ile  
785 790 795 800

Pro Ile Glu Lys Tyr Gln Phe Ser Leu Tyr Pro Val Phe Met Glu Gly  
805 810 815

Val Gly Lys Pro Lys Ile Ile Asn Gly Phe Thr Lys Asp Ala Ile Asp  
820 825 830

Lys Gln Gln Asn Asp Ala Gly Leu Tyr Val Ile Val Pro Ile Ile Ile  
835 840 845

Ser Ser Cys Val Leu Leu Leu Gly Thr Leu Leu Ile Ser His Gln Arg  
850 855 860

Met Lys Lys Leu Phe Trp Asp Asp Val Pro Asn Pro Lys Asn Cys Ser  
865 870 875 880

Trp Ala Gln Gly Leu Asn Phe Gln Lys  
885

<210> 81  
<211> 867  
<212> PRT  
<213> Mus musculus

<400> 81

Asn Leu Ala Tyr Pro Ile Ser Pro Trp Lys Phe Lys Leu Phe Cys Gly  
1 5 10 15

Pro Pro Asn Thr Thr Asp Asp Ser Phe Leu Ser Pro Ala Gly Ala Pro  
20 25 30

Asn Asn Ala Ser Ala Leu Lys Gly Ala Ser Glu Ala Ile Val Glu Ala  
35 40 45

Lys Phe Asn Ser Ser Gly Ile Tyr Val Pro Glu Leu Ser Lys Thr Val  
50 55 60

Phe His Cys Cys Phe Gly Asn Glu Gln Gly Gln Asn Cys Ser Ala Leu  
65 70 75 80

Thr Asp Asn Thr Glu Gly Lys Thr Leu Ala Ser Val Val Lys Ala Ser  
85 90 95

Val Phe Arg Gln Leu Gly Val Asn Trp Asp Ile Glu Cys Trp Met Lys  
100 105 110

Gly Asp Leu Thr Leu Phe Ile Cys His Met Glu Pro Leu Pro Lys Asn  
115 120 125

Pro Phe Lys Asn Tyr Asp Ser Lys Val His Leu Leu Tyr Asp Leu Pro  
130 135 140

Glu Val Ile Asp Asp Ser Pro Leu Pro Pro Leu Lys Asp Ser Phe Gln  
145 150 155 160

Thr Val Gln Cys Asn Cys Ser Leu Arg Gly Cys Glu Cys His Val Pro  
165 170 175

Val Pro Arg Ala Lys Leu Asn Tyr Ala Leu Leu Met Tyr Leu Glu Ile  
180 185 190

Thr Ser Ala Gly Val Ser Phe Gln Ser Pro Leu Met Ser Leu Gln Pro

195							200			205					
Met 210	Leu	Val	Val	Lys	Pro	Asp 215	Pro	Pro	Leu	Gly	Leu 220	His	Met	Glu	Val
Thr 225	Asp	Asp	Gly	Asn	Leu 230	Lys	Ile	Ser	Trp	Asp 235	Ser	Gln	Thr	Met	Ala 240
Pro	Phe	Pro	Leu	Gln 245	Tyr	Gln	Val	Lys	Tyr 250	Leu	Glu	Asn	Ser	Thr 255	Ile
Val	Arg	Glu	Ala 260	Ala	Glu	Ile	Val	Ser 265	Ala	Thr	Ser	Leu 270	Leu	Val	Asp
Ser	Val	Leu 275	Pro	Gly	Ser	Ser	Tyr 280	Glu	Val	Gln	Val	Arg 285	Ser	Lys	Arg
Leu 290	Asp	Gly	Ser	Gly	Val	Trp 295	Ser	Asp	Trp	Ser	Ser 300	Pro	Gln	Val	Phe
Thr 305	Thr	Gln	Asp	Val	Val 310	Tyr	Phe	Pro	Pro	Lys 315	Ile	Leu	Thr	Ser	Val 320
Gly	Ser	Asn	Ala	Ser 325	Phe	His	Cys	Ile	Tyr 330	Lys	Asn	Glu	Asn	Gln 335	Ile
Ile	Ser	Ser	Lys 340	Gln	Ile	Val	Trp	Trp 345	Arg	Asn	Leu	Ala 350	Glu	Lys	Ile
Pro	Glu	Ile	Gln	Tyr	Ser	Ile	Val 360	Ser	Asp	Arg	Val	Ser 365	Lys	Val	Thr
Phe 370	Ser	Asn	Leu	Lys	Ala	Thr 375	Arg	Pro	Arg	Gly	Lys 380	Phe	Thr	Tyr	Asp
Ala 385	Val	Tyr	Cys	Cys	Asn 390	Glu	Gln	Ala	Cys	His 395	His	Arg	Tyr	Ala	Glu 400
Leu	Tyr	Val	Ile	Asp 405	Val	Asn	Ile	Asn	Ile 410	Ser	Cys	Glu	Thr	Asp 415	Gly
Tyr	Leu	Thr	Lys 420	Met	Thr	Cys	Arg	Trp 425	Ser	Pro	Ser	Thr	Ile	Gln	Ser

Leu Val Gly Ser Thr Val Gln Leu Arg Tyr His Arg Arg Ser Leu Tyr  
435 440 445

Cys Pro Asp Ser Pro Ser Ile His Pro Thr Ser Glu Pro Lys Asn Cys  
450 455 460

Val Leu Gln Arg Asp Gly Phe Tyr Glu Cys Val Phe Gln Pro Ile Phe  
465 470 475 480

Leu Leu Ser Gly Tyr Thr Met Trp Ile Arg Ile Asn His Ser Leu Gly  
485 490 495

Ser Leu Asp Ser Pro Pro Thr Cys Val Leu Pro Asp Ser Val Val Lys  
500 505 510

Pro Leu Pro Pro Ser Asn Val Lys Ala Glu Ile Thr Val Asn Thr Gly  
515 520 525

Leu Leu Lys Val Ser Trp Glu Lys Pro Val Phe Pro Glu Asn Asn Leu  
530 535 540

Gln Phe Gln Ile Arg Tyr Gly Leu Ser Gly Lys Glu Ile Gln Trp Lys  
545 550 555 560

Thr His Glu Val Phe Asp Ala Lys Ser Lys Ser Ala Ser Leu Leu Val  
565 570 575

Ser Asp Leu Cys Ala Val Tyr Val Val Gln Val Arg Cys Arg Arg Leu  
580 585 590

Asp Gly Leu Gly Tyr Trp Ser Asn Trp Ser Ser Pro Ala Tyr Thr Leu  
595 600 605

Val Met Asp Val Lys Val Pro Met Arg Gly Pro Glu Phe Trp Arg Lys  
610 615 620

Met Asp Gly Asp Val Thr Lys Lys Glu Arg Asn Val Thr Leu Leu Trp  
625 630 635 640

Lys Pro Leu Thr Lys Asn Asp Ser Leu Cys Ser Val Arg Arg Tyr Val  
645 650 655

Val Lys His Arg Thr Ala His Asn Gly Thr Trp Ser Glu Asp Val Gly  
660 665 670

Asn Arg Thr Asn Leu Thr Phe Leu Trp Thr Glu Pro Ala His Thr Val  
675 680 685

Thr Val Leu Ala Val Asn Ser Leu Gly Ala Ser Leu Val Asn Phe Asn  
690 695 700

Leu Thr Phe Ser Trp Pro Met Ser Lys Val Ser Ala Val Glu Ser Leu  
705 710 715 720

Ser Ala Tyr Pro Leu Ser Ser Ser Cys Val Ile Leu Ser Trp Thr Leu  
725 730 735

Ser Pro Asp Asp Tyr Ser Leu Leu Tyr Leu Val Ile Glu Trp Lys Ile  
740 745 750

Leu Asn Glu Asp Asp Gly Met Lys Trp Leu Arg Ile Pro Ser Asn Val  
755 760 765

Lys Lys Phe Tyr Ile His Asp Asn Phe Ile Pro Ile Glu Lys Tyr Gln  
770 775 780

Phe Ser Leu Tyr Pro Val Phe Met Glu Gly Val Gly Lys Pro Lys Ile  
785 790 795 800

Ile Asn Gly Phe Thr Lys Asp Ala Ile Asp Lys Gln Gln Asn Asp Ala  
805 810 815

Gly Leu Tyr Val Ile Val Pro Ile Ile Ile Ser Ser Cys Val Leu Leu  
820 825 830

Leu Gly Thr Leu Leu Ile Ser His Gln Arg Met Lys Lys Leu Phe Trp  
835 840 845

Asp Asp Val Pro Asn Pro Lys Asn Cys Ser Trp Ala Gln Gly Leu Asn  
850 855 860

Phe Gln Lys  
865

<210> 82  
<211> 862  
<212> PRT  
<213> Mus musculus

<400> 82

Ile Ser Pro Trp Lys Phe Lys Leu Phe Cys Gly Pro Pro Asn Thr Thr  
1 5 10 15

Asp Asp Ser Phe Leu Ser Pro Ala Gly Ala Pro Asn Asn Ala Ser Ala  
20 25 30

Leu Lys Gly Ala Ser Glu Ala Ile Val Glu Ala Lys Phe Asn Ser Ser  
35 40 45

Gly Ile Tyr Val Pro Glu Leu Ser Lys Thr Val Phe His Cys Cys Phe  
50 55 60

Gly Asn Glu Gln Gly Gln Asn Cys Ser Ala Leu Thr Asp Asn Thr Glu  
65 70 75 80

Gly Lys Thr Leu Ala Ser Val Val Lys Ala Ser Val Phe Arg Gln Leu  
85 90 95

Gly Val Asn Trp Asp Ile Glu Cys Trp Met Lys Gly Asp Leu Thr Leu  
100 105 110

Phe Ile Cys His Met Glu Pro Leu Pro Lys Asn Pro Phe Lys Asn Tyr  
115 120 125

Asp Ser Lys Val His Leu Leu Tyr Asp Leu Pro Glu Val Ile Asp Asp  
130 135 140

Ser Pro Leu Pro Pro Leu Lys Asp Ser Phe Gln Thr Val Gln Cys Asn  
145 150 155 160

Cys Ser Leu Arg Gly Cys Glu Cys His Val Pro Val Pro Arg Ala Lys  
165 170 175

Leu Asn Tyr Ala Leu Leu Met Tyr Leu Glu Ile Thr Ser Ala Gly Val  
180 185 190

Ser Phe Gln Ser Pro Leu Met Ser Leu Gln Pro Met Leu Val Val Lys  
195 200 205



Pro Asp Pro Pro Leu Gly Leu His Met Glu Val Thr Asp Asp Gly Asn  
210 215 220

Leu Lys Ile Ser Trp Asp Ser Gln Thr Met Ala Pro Phe Pro Leu Gln  
225 230 235 240

Tyr Gln Val Lys Tyr Leu Glu Asn Ser Thr Ile Val Arg Glu Ala Ala  
245 250 255

Glu Ile Val Ser Ala Thr Ser Leu Leu Val Asp Ser Val Leu Pro Gly  
260 265 270

Ser Ser Tyr Glu Val Gln Val Arg Ser Lys Arg Leu Asp Gly Ser Gly  
275 280 285

Val Trp Ser Asp Trp Ser Ser Pro Gln Val Phe Thr Thr Gln Asp Val  
290 295 300

Val Tyr Phe Pro Pro Lys Ile Leu Thr Ser Val Gly Ser Asn Ala Ser  
305 310 315 320

Phe His Cys Ile Tyr Lys Asn Glu Asn Gln Ile Ile Ser Ser Lys Gln  
325 330 335

Ile Val Trp Trp Arg Asn Leu Ala Glu Lys Ile Pro Glu Ile Gln Tyr  
340 345 350

Ser Ile Val Ser Asp Arg Val Ser Lys Val Thr Phe Ser Asn Leu Lys  
355 360 365

Ala Thr Arg Pro Arg Gly Lys Phe Thr Tyr Asp Ala Val Tyr Cys Cys  
370 375 380

Asn Glu Gln Ala Cys His His Arg Tyr Ala Glu Leu Tyr Val Ile Asp  
385 390 395 400

Val Asn Ile Asn Ile Ser Cys Glu Thr Asp Gly Tyr Leu Thr Lys Met  
405 410 415

Thr Cys Arg Trp Ser Pro Ser Thr Ile Gln Ser Leu Val Gly Ser Thr  
420 425 430

Val Gln Leu Arg Tyr His Arg Arg Ser Leu Tyr Cys Pro Asp Ser Pro  
435 440 445

Ser Ile His Pro Thr Ser Glu Pro Lys Asn Cys Val Leu Gln Arg Asp  
450 455 460

Gly Phe Tyr Glu Cys Val Phe Gln Pro Ile Phe Leu Leu Ser Gly Tyr  
465 470 475 480

Thr Met Trp Ile Arg Ile Asn His Ser Leu Gly Ser Leu Asp Ser Pro  
485 490 495

Pro Thr Cys Val Leu Pro Asp Ser Val Val Lys Pro Leu Pro Pro Ser  
500 505 510

Asn Val Lys Ala Glu Ile Thr Val Asn Thr Gly Leu Leu Lys Val Ser  
515 520 525

Trp Glu Lys Pro Val Phe Pro Glu Asn Asn Leu Gln Phe Gln Ile Arg  
530 535 540

Tyr Gly Leu Ser Gly Lys Glu Ile Gln Trp Lys Thr His Glu Val Phe  
545 550 555 560

Asp Ala Lys Ser Lys Ser Ala Ser Leu Leu Val Ser Asp Leu Cys Ala  
565 570 575

Val Tyr Val Val Gln Val Arg Cys Arg Arg Leu Asp Gly Leu Gly Tyr  
580 585 590

Trp Ser Asn Trp Ser Ser Pro Ala Tyr Thr Leu Val Met Asp Val Lys  
595 600 605

Val Pro Met Arg Gly Pro Glu Phe Trp Arg Lys Met Asp Gly Asp Val  
610 615 620

Thr Lys Lys Glu Arg Asn Val Thr Leu Leu Trp Lys Pro Leu Thr Lys  
625 630 635 640

Asn Asp Ser Leu Cys Ser Val Arg Arg Tyr Val Val Lys His Arg Thr  
645 650 655

Ala His Asn Gly Thr Trp Ser Glu Asp Val Gly Asn Arg Thr Asn Leu  
660 665 670

Thr Phe Leu Trp Thr Glu Pro Ala His Thr Val Thr Val Leu Ala Val  
675 680 685

Asn Ser Leu Gly Ala Ser Leu Val Asn Phe Asn Leu Thr Phe Ser Trp  
690 695 700

Pro Met Ser Lys Val Ser Ala Val Glu Ser Leu Ser Ala Tyr Pro Leu  
705 710 715 720

Ser Ser Ser Cys Val Ile Leu Ser Trp Thr Leu Ser Pro Asp Asp Tyr  
725 730 735

Ser Leu Leu Tyr Leu Val Ile Glu Trp Lys Ile Leu Asn Glu Asp Asp  
740 745 750

Gly Met Lys Trp Leu Arg Ile Pro Ser Asn Val Lys Lys Phe Tyr Ile  
755 760 765

His Asp Asn Phe Ile Pro Ile Glu Lys Tyr Gln Phe Ser Leu Tyr Pro  
770 775 780

Val Phe Met Glu Gly Val Gly Lys Pro Lys Ile Ile Asn Gly Phe Thr  
785 790 795 800

Lys Asp Ala Ile Asp Lys Gln Gln Asn Asp Ala Gly Leu Tyr Val Ile  
805 810 815

Val Pro Ile Ile Ile Ser Ser Cys Val Leu Leu Leu Gly Thr Leu Leu  
820 825 830

Ile Ser His Gln Arg Met Lys Lys Leu Phe Trp Asp Asp Val Pro Asn  
835 840 845

Pro Lys Asn Cys Ser Trp Ala Gln Gly Leu Asn Phe Gln Lys  
850 855 860

<210> 83  
<211> 757  
<212> PRT  
<213> Mus musculus

<400> 83

Met Lys Gly Asp Leu Thr Leu Phe Ile Cys His Met Glu Pro Leu Pro  
1 5 10 15

Lys Asn Pro Phe Lys Asn Tyr Asp Ser Lys Val His Leu Leu Tyr Asp  
20 25 30

Leu Pro Glu Val Ile Asp Asp Ser Pro Leu Pro Pro Leu Lys Asp Ser  
35 40 45

Phe Gln Thr Val Gln Cys Asn Cys Ser Leu Arg Gly Cys Glu Cys His  
50 55 60

Val Pro Val Pro Arg Ala Lys Leu Asn Tyr Ala Leu Leu Met Tyr Leu  
65 70 75 80

Glu Ile Thr Ser Ala Gly Val Ser Phe Gln Ser Pro Leu Met Ser Leu  
85 90 95

Gln Pro Met Leu Val Val Lys Pro Asp Pro Pro Leu Gly Leu His Met  
100 105 110

Glu Val Thr Asp Asp Gly Asn Leu Lys Ile Ser Trp Asp Ser Gln Thr  
115 120 125

Met Ala Pro Phe Pro Leu Gln Tyr Gln Val Lys Tyr Leu Glu Asn Ser  
130 135 140

Thr Ile Val Arg Glu Ala Ala Glu Ile Val Ser Ala Thr Ser Leu Leu  
145 150 155 160

Val Asp Ser Val Leu Pro Gly Ser Ser Tyr Glu Val Gln Val Arg Ser  
165 170 175

Lys Arg Leu Asp Gly Ser Gly Val Trp Ser Asp Trp Ser Ser Pro Gln  
180 185 190

Val Phe Thr Thr Gln Asp Val Val Tyr Phe Pro Pro Lys Ile Leu Thr  
195 200 205

Ser Val Gly Ser Asn Ala Ser Phe His Cys Ile Tyr Lys Asn Glu Asn  
210 215 220

Gln Ile Ile Ser Ser Lys Gln Ile Val Trp Trp Arg Asn Leu Ala Glu  
225 230 235 240

Lys Ile Pro Glu Ile Gln Tyr Ser Ile Val Ser Asp Arg Val Ser Lys  
245 250 255

Val Thr Phe Ser Asn Leu Lys Ala Thr Arg Pro Arg Gly Lys Phe Thr  
260 265 270

Tyr Asp Ala Val Tyr Cys Cys Asn Glu Gln Ala Cys His His Arg Tyr  
275 280 285

Ala Glu Leu Tyr Val Ile Asp Val Asn Ile Asn Ile Ser Cys Glu Thr  
290 295 300

Asp Gly Tyr Leu Thr Lys Met Thr Cys Arg Trp Ser Pro Ser Thr Ile  
305 310 315 320

Gln Ser Leu Val Gly Ser Thr Val Gln Leu Arg Tyr His Arg Arg Ser  
325 330 335

Leu Tyr Cys Pro Asp Ser Pro Ser Ile His Pro Thr Ser Glu Pro Lys  
340 345 350

Asn Cys Val Leu Gln Arg Asp Gly Phe Tyr Glu Cys Val Phe Gln Pro  
355 360 365

Ile Phe Leu Leu Ser Gly Tyr Thr Met Trp Ile Arg Ile Asn His Ser  
370 375 380

Leu Gly Ser Leu Asp Ser Pro Pro Thr Cys Val Leu Pro Asp Ser Val  
385 390 395 400

Val Lys Pro Leu Pro Pro Ser Asn Val Lys Ala Glu Ile Thr Val Asn  
405 410 415

Thr Gly Leu Leu Lys Val Ser Trp Glu Lys Pro Val Phe Pro Glu Asn  
420 425 430

Asn Leu Gln Phe Gln Ile Arg Tyr Gly Leu Ser Gly Lys Glu Ile Gln  
435 440 445

Trp Lys Thr His Glu Val Phe Asp Ala Lys Ser Lys Ser Ala Ser Leu  
450 455 460

Leu Val Ser Asp Leu Cys Ala Val Tyr Val Val Gln Val Arg Cys Arg  
465 470 475 480

Arg Leu Asp Gly Leu Gly Tyr Trp Ser Asn Trp Ser Ser Pro Ala Tyr  
485 490 495

Thr Leu Val Met Asp Val Lys Val Pro Met Arg Gly Pro Glu Phe Trp  
500 505 510

Arg Lys Met Asp Gly Asp Val Thr Lys Lys Glu Arg Asn Val Thr Leu  
515 520 525

Leu Trp Lys Pro Leu Thr Lys Asn Asp Ser Leu Cys Ser Val Arg Arg  
530 535 540

Tyr Val Val Lys His Arg Thr Ala His Asn Gly Thr Trp Ser Glu Asp  
545 550 555 560

Val Gly Asn Arg Thr Asn Leu Thr Phe Leu Trp Thr Glu Pro Ala His  
565 570 575

Thr Val Thr Val Leu Ala Val Asn Ser Leu Gly Ala Ser Leu Val Asn  
580 585 590

Phe Asn Leu Thr Phe Ser Trp Pro Met Ser Lys Val Ser Ala Val Glu  
595 600 605

Ser Leu Ser Ala Tyr Pro Leu Ser Ser Ser Cys Val Ile Leu Ser Trp  
610 615 620

Thr Leu Ser Pro Asp Asp Tyr Ser Leu Leu Tyr Leu Val Ile Glu Trp  
625 630 635 640

Lys Ile Leu Asn Glu Asp Asp Gly Met Lys Trp Leu Arg Ile Pro Ser  
645 650 655

Asn Val Lys Lys Phe Tyr Ile His Asp Asn Phe Ile Pro Ile Glu Lys  
660 665 670

Tyr Gln Phe Ser Leu Tyr Pro Val Phe Met Glu Gly Val Gly Lys Pro

675

680

685

Lys Ile Ile Asn Gly Phe Thr Lys Asp Ala Ile Asp Lys Gln Gln Asn  
690 695 700

Asp Ala Gly Leu Tyr Val Ile Val Pro Ile Ile Ile Ser Ser Cys Val  
705 710 715 720

Leu Leu Leu Gly Thr Leu Leu Ile Ser His Gln Arg Met Lys Lys Leu  
725 730 735

Phe Trp Asp Asp Val Pro Asn Pro Lys Asn Cys Ser Trp Ala Gln Gly  
740 745 750

Leu Asn Phe Gln Lys  
755

<210> 84  
<211> 157  
<212> PRT  
<213> Mus musculus

<400> 84

Met Ser Lys Val Ser Ala Val Glu Ser Leu Ser Ala Tyr Pro Leu Ser  
1 5 10 15

Ser Ser Cys Val Ile Leu Ser Trp Thr Leu Ser Pro Asp Asp Tyr Ser  
20 25 30

Leu Leu Tyr Leu Val Ile Glu Trp Lys Ile Leu Asn Glu Asp Asp Gly  
35 40 45

Met Lys Trp Leu Arg Ile Pro Ser Asn Val Lys Lys Phe Tyr Ile His  
50 55 60

Asp Asn Phe Ile Pro Ile Glu Lys Tyr Gln Phe Ser Leu Tyr Pro Val  
65 70 75 80

Phe Met Glu Gly Val Gly Lys Pro Lys Ile Ile Asn Gly Phe Thr Lys  
85 90 95

Asp Ala Ile Asp Lys Gln Gln Asn Asp Ala Gly Leu Tyr Val Ile Val  
100 105 110

Pro Ile Ile Ile Ser Ser Cys Val Leu Leu Leu Gly Thr Leu Leu Ile  
115 120 125

Ser His Gln Arg Met Lys Lys Leu Phe Trp Asp Asp Val Pro Asn Pro  
130 135 140

Lys Asn Cys Ser Trp Ala Gln Gly Leu Asn Phe Gln Lys  
145 150 155

<210> 85  
<211> 796  
<212> PRT  
<213> Mus musculus

<400> 85

Met Met Cys Gln Lys Phe Tyr Val Val Leu Leu His Trp Glu Phe Leu  
1 5 10 15

Tyr Val Ile Ala Ala Leu Asn Leu Ala Tyr Pro Ile Ser Pro Trp Lys  
20 25 30

Phe Lys Leu Phe Cys Gly Pro Pro Asn Thr Thr Asp Asp Ser Phe Leu  
35 40 45

Ser Pro Ala Gly Ala Pro Asn Asn Ala Ser Ala Leu Lys Gly Ala Ser  
50 55 60

Glu Ala Ile Val Glu Ala Lys Phe Asn Ser Ser Gly Ile Tyr Val Pro  
65 70 75 80

Glu Leu Ser Lys Thr Val Phe His Cys Cys Phe Gly Asn Glu Gln Gly  
85 90 95

Gln Asn Cys Ser Ala Leu Thr Asp Asn Thr Glu Gly Lys Thr Leu Ala  
100 105 110

Ser Val Val Lys Ala Ser Val Phe Arg Gln Leu Gly Val Asn Trp Asp  
115 120 125

Ile Glu Cys Trp Met Lys Gly Asp Leu Thr Leu Phe Ile Cys His Met  
130 135 140

Glu Pro Leu Pro Lys Asn Pro Phe Lys Asn Tyr Asp Ser Lys Val His



145		150		155		160
Leu Leu Tyr Asp	Leu Pro Glu Val	Ile Asp Asp Ser Pro	Leu Pro Pro			
	165		170		175	
Leu Lys Asp Ser	Phe Gln Thr Val	Gln Cys Asn Cys Ser	Leu Arg Gly			
	180	185	190			
Cys Glu Cys His	Val Pro Val Pro	Arg Ala Lys Leu	Asn Tyr Ala Leu			
	195	200	205			
Leu Met Tyr Leu	Glu Ile Thr Ser	Ala Gly Val Ser	Phe Gln Ser Pro			
	210	215	220			
Leu Met Ser Leu	Gln Pro Met Leu	Val Val Lys Pro	Asp Pro Pro Leu			
	225	230	235			240
Gly Leu His Met	Glu Val Thr Asp	Asp Gly Asn Leu	Lys Ile Ser Trp			
	245	250	255			
Asp Ser Gln Thr	Met Ala Pro Phe	Pro Leu Gln Tyr	Gln Val Lys Tyr			
	260	265	270			
Leu Glu Asn Ser	Thr Ile Val Arg	Glu Ala Ala Glu	Ile Val Ser Ala			
	275	280	285			
Thr Ser Leu Leu	Val Asp Ser Val	Leu Pro Gly Ser	Ser Tyr Glu Val			
	290	295	300			
Gln Val Arg Ser	Lys Arg Leu Asp	Gly Ser Gly Val	Trp Ser Asp Trp			
	305	310	315			320
Ser Ser Pro Gln	Val Phe Thr Thr	Gln Asp Val Val	Tyr Phe Pro Pro			
	325	330	335			
Lys Ile Leu Thr	Ser Val Gly Ser	Asn Ala Ser Phe	His Cys Ile Tyr			
	340	345	350			
Lys Asn Glu Asn	Gln Ile Ile Ser	Ser Lys Gln Ile	Val Trp Trp Arg			
	355	360	365			
Asn Leu Ala Glu	Lys Ile Pro Glu	Ile Gln Tyr Ser	Ile Val Ser Asp			
	370	375	380			

Arg Val Ser Lys Val Thr Phe Ser Asn Leu Lys Ala Thr Arg Pro Arg  
385 390 395 400

Gly Lys Phe Thr Tyr Asp Ala Val Tyr Cys Cys Asn Glu Gln Ala Cys  
405 410 415

His His Arg Tyr Ala Glu Leu Tyr Val Ile Asp Val Asn Ile Asn Ile  
420 425 430

Ser Cys Glu Thr Asp Gly Tyr Leu Thr Lys Met Thr Cys Arg Trp Ser  
435 440 445

Pro Ser Thr Ile Gln Ser Leu Val Gly Ser Thr Val Gln Leu Arg Tyr  
450 455 460

His Arg Arg Ser Leu Tyr Cys Pro Asp Ser Pro Ser Ile His Pro Thr  
465 470 475 480

Ser Glu Pro Lys Asn Cys Val Leu Gln Arg Asp Gly Phe Tyr Glu Cys  
485 490 495

Val Phe Gln Pro Ile Phe Leu Leu Ser Gly Tyr Thr Met Trp Ile Arg  
500 505 510

Ile Asn His Ser Leu Gly Ser Leu Asp Ser Pro Pro Thr Cys Val Leu  
515 520 525

Pro Asp Ser Val Val Lys Pro Leu Pro Pro Ser Asn Val Lys Ala Glu  
530 535 540

Ile Thr Val Asn Thr Gly Leu Leu Lys Val Ser Trp Glu Lys Pro Val  
545 550 555 560

Phe Pro Glu Asn Asn Leu Gln Phe Gln Ile Arg Tyr Gly Leu Ser Gly  
565 570 575

Lys Glu Ile Gln Trp Lys Thr His Glu Val Phe Asp Ala Lys Ser Lys  
580 585 590

Ser Ala Ser Leu Leu Val Ser Asp Leu Cys Ala Val Tyr Val Val Gln  
595 600 605

Val Arg Cys Arg Arg Leu Asp Gly Leu Gly Tyr Trp Ser Asn Trp Ser  
610 615 620

Ser Pro Ala Tyr Thr Leu Val Met Asp Val Lys Val Pro Met Arg Gly  
625 630 635 640

Pro Glu Phe Trp Arg Lys Met Asp Gly Asp Val Thr Lys Lys Glu Arg  
645 650 655

Asn Val Thr Leu Leu Trp Lys Pro Leu Thr Lys Asn Asp Ser Leu Cys  
660 665 670

Ser Val Arg Arg Tyr Val Val Lys His Arg Thr Ala His Asn Gly Thr  
675 680 685

Trp Ser Glu Asp Val Gly Asn Arg Thr Asn Leu Thr Phe Leu Trp Thr  
690 695 700

Glu Pro Ala His Thr Val Thr Val Leu Ala Val Asn Ser Leu Gly Ala  
705 710 715 720

Ser Leu Val Asn Phe Asn Leu Thr Phe Ser Trp Pro Met Ser Lys Val  
725 730 735

Ser Ala Val Glu Ser Leu Ser Ala Tyr Pro Leu Ser Ser Ser Cys Val  
740 745 750

Ile Leu Ser Trp Thr Leu Ser Pro Asp Asp Tyr Ser Leu Leu Tyr Leu  
755 760 765

Val Ile Glu Trp Lys Ile Leu Asn Glu Asp Asp Gly Met Lys Trp Leu  
770 775 780

Arg Ile Pro Ser Asn Val Lys Lys Phe Tyr Ile His  
785 790 795

<210> 86  
<211> 774  
<212> PRT  
<213> Mus musculus

<400> 86

Asn Leu Ala Tyr Pro Ile Ser Pro Trp Lys Phe Lys Leu Phe Cys Gly

1	5	10	15
Pro Pro Asn Thr Thr Asp Asp Ser Phe Leu Ser Pro Ala Gly Ala Pro	20	25	30
Asn Asn Ala Ser Ala Leu Lys Gly Ala Ser Glu Ala Ile Val Glu Ala	35	40	45
Lys Phe Asn Ser Ser Gly Ile Tyr Val Pro Glu Leu Ser Lys Thr Val	50	55	60
Phe His Cys Cys Phe Gly Asn Glu Gln Gly Gln Asn Cys Ser Ala Leu	65	70	75
Thr Asp Asn Thr Glu Gly Lys Thr Leu Ala Ser Val Val Lys Ala Ser	85	90	95
Val Phe Arg Gln Leu Gly Val Asn Trp Asp Ile Glu Cys Trp Met Lys	100	105	110
Gly Asp Leu Thr Leu Phe Ile Cys His Met Glu Pro Leu Pro Lys Asn	115	120	125
Pro Phe Lys Asn Tyr Asp Ser Lys Val His Leu Leu Tyr Asp Leu Pro	130	135	140
Glu Val Ile Asp Asp Ser Pro Leu Pro Pro Leu Lys Asp Ser Phe Gln	145	150	155
Thr Val Gln Cys Asn Cys Ser Leu Arg Gly Cys Glu Cys His Val Pro	165	170	175
Val Pro Arg Ala Lys Leu Asn Tyr Ala Leu Leu Met Tyr Leu Glu Ile	180	185	190
Thr Ser Ala Gly Val Ser Phe Gln Ser Pro Leu Met Ser Leu Gln Pro	195	200	205
Met Leu Val Val Lys Pro Asp Pro Pro Leu Gly Leu His Met Glu Val	210	215	220
Thr Asp Asp Gly Asn Leu Lys Ile Ser Trp Asp Ser Gln Thr Met Ala	225	230	235
			240

Pro Phe Pro Leu Gln Tyr Gln Val Lys Tyr Leu Glu Asn Ser Thr Ile  
245 250 255

Val Arg Glu Ala Ala Glu Ile Val Ser Ala Thr Ser Leu Leu Val Asp  
260 265 270

Ser Val Leu Pro Gly Ser Ser Tyr Glu Val Gln Val Arg Ser Lys Arg  
275 280 285

Leu Asp Gly Ser Gly Val Trp Ser Asp Trp Ser Ser Pro Gln Val Phe  
290 295 300

Thr Thr Gln Asp Val Val Tyr Phe Pro Pro Lys Ile Leu Thr Ser Val  
305 310 315 320

Gly Ser Asn Ala Ser Phe His Cys Ile Tyr Lys Asn Glu Asn Gln Ile  
325 330 335

Ile Ser Ser Lys Gln Ile Val Trp Trp Arg Asn Leu Ala Glu Lys Ile  
340 345 350

Pro Glu Ile Gln Tyr Ser Ile Val Ser Asp Arg Val Ser Lys Val Thr  
355 360 365

Phe Ser Asn Leu Lys Ala Thr Arg Pro Arg Gly Lys Phe Thr Tyr Asp  
370 375 380

Ala Val Tyr Cys Cys Asn Glu Gln Ala Cys His His Arg Tyr Ala Glu  
385 390 395 400

Leu Tyr Val Ile Asp Val Asn Ile Asn Ile Ser Cys Glu Thr Asp Gly  
405 410 415

Tyr Leu Thr Lys Met Thr Cys Arg Trp Ser Pro Ser Thr Ile Gln Ser  
420 425 430

Leu Val Gly Ser Thr Val Gln Leu Arg Tyr His Arg Arg Ser Leu Tyr  
435 440 445

Cys Pro Asp Ser Pro Ser Ile His Pro Thr Ser Glu Pro Lys Asn Cys  
450 455 460

Val Leu Gln Arg Asp Gly Phe Tyr Glu Cys Val Phe Gln Pro Ile Phe  
465 470 475 480

Leu Leu Ser Gly Tyr Thr Met Trp Ile Arg Ile Asn His Ser Leu Gly  
485 490 495

Ser Leu Asp Ser Pro Pro Thr Cys Val Leu Pro Asp Ser Val Val Lys  
500 505 510

Pro Leu Pro Pro Ser Asn Val Lys Ala Glu Ile Thr Val Asn Thr Gly  
515 520 525

Leu Leu Lys Val Ser Trp Glu Lys Pro Val Phe Pro Glu Asn Asn Leu  
530 535 540

Gln Phe Gln Ile Arg Tyr Gly Leu Ser Gly Lys Glu Ile Gln Trp Lys  
545 550 555 560

Thr His Glu Val Phe Asp Ala Lys Ser Lys Ser Ala Ser Leu Leu Val  
565 570 575

Ser Asp Leu Cys Ala Val Tyr Val Val Gln Val Arg Cys Arg Arg Leu  
580 585 590

Asp Gly Leu Gly Tyr Trp Ser Asn Trp Ser Ser Pro Ala Tyr Thr Leu  
595 600 605

Val Met Asp Val Lys Val Pro Met Arg Gly Pro Glu Phe Trp Arg Lys  
610 615 620

Met Asp Gly Asp Val Thr Lys Lys Glu Arg Asn Val Thr Leu Leu Trp  
625 630 635 640

Lys Pro Leu Thr Lys Asn Asp Ser Leu Cys Ser Val Arg Arg Tyr Val  
645 650 655

Val Lys His Arg Thr Ala His Asn Gly Thr Trp Ser Glu Asp Val Gly  
660 665 670

Asn Arg Thr Asn Leu Thr Phe Leu Trp Thr Glu Pro Ala His Thr Val  
675 680 685

Thr Val Leu Ala Val Asn Ser Leu Gly Ala Ser Leu Val Asn Phe Asn  
690 695 700

Leu Thr Phe Ser Trp Pro Met Ser Lys Val Ser Ala Val Glu Ser Leu  
705 710 715 720

Ser Ala Tyr Pro Leu Ser Ser Ser Cys Val Ile Leu Ser Trp Thr Leu  
725 730 735

Ser Pro Asp Asp Tyr Ser Leu Leu Tyr Leu Val Ile Glu Trp Lys Ile  
740 745 750

Leu Asn Glu Asp Asp Gly Met Lys Trp Leu Arg Ile Pro Ser Asn Val  
755 760 765

Lys Lys Phe Tyr Ile His  
770

<210> 87  
<211> 769  
<212> PRT  
<213> Mus musculus

<400> 87

Ile Ser Pro Trp Lys Phe Lys Leu Phe Cys Gly Pro Pro Asn Thr Thr  
1 5 10 15

Asp Asp Ser Phe Leu Ser Pro Ala Gly Ala Pro Asn Asn Ala Ser Ala  
20 25 30

Leu Lys Gly Ala Ser Glu Ala Ile Val Glu Ala Lys Phe Asn Ser Ser  
35 40 45

Gly Ile Tyr Val Pro Glu Leu Ser Lys Thr Val Phe His Cys Cys Phe  
50 55 60

Gly Asn Glu Gln Gly Gln Asn Cys Ser Ala Leu Thr Asp Asn Thr Glu  
65 70 75 80

Gly Lys Thr Leu Ala Ser Val Val Lys Ala Ser Val Phe Arg Gln Leu  
85 90 95

Gly Val Asn Trp Asp Ile Glu Cys Trp Met Lys Gly Asp Leu Thr Leu  
100 105 110

Phe Ile Cys His Met Glu Pro Leu Pro Lys Asn Pro Phe Lys Asn Tyr  
115 120 125

Asp Ser Lys Val His Leu Leu Tyr Asp Leu Pro Glu Val Ile Asp Asp  
130 135 140

Ser Pro Leu Pro Pro Leu Lys Asp Ser Phe Gln Thr Val Gln Cys Asn  
145 150 155 160

Cys Ser Leu Arg Gly Cys Glu Cys His Val Pro Val Pro Arg Ala Lys  
165 170 175

Leu Asn Tyr Ala Leu Leu Met Tyr Leu Glu Ile Thr Ser Ala Gly Val  
180 185 190

Ser Phe Gln Ser Pro Leu Met Ser Leu Gln Pro Met Leu Val Val Lys  
195 200 205

Pro Asp Pro Pro Leu Gly Leu His Met Glu Val Thr Asp Asp Gly Asn  
210 215 220

Leu Lys Ile Ser Trp Asp Ser Gln Thr Met Ala Pro Phe Pro Leu Gln  
225 230 235 240

Tyr Gln Val Lys Tyr Leu Glu Asn Ser Thr Ile Val Arg Glu Ala Ala  
245 250 255

Glu Ile Val Ser Ala Thr Ser Leu Leu Val Asp Ser Val Leu Pro Gly  
260 265 270

Ser Ser Tyr Glu Val Gln Val Arg Ser Lys Arg Leu Asp Gly Ser Gly  
275 280 285

Val Trp Ser Asp Trp Ser Ser Pro Gln Val Phe Thr Thr Gln Asp Val  
290 295 300

Val Tyr Phe Pro Pro Lys Ile Leu Thr Ser Val Gly Ser Asn Ala Ser  
305 310 315 320

Phe His Cys Ile Tyr Lys Asn Glu Asn Gln Ile Ile Ser Ser Lys Gln  
325 330 335



Ile Val Trp Trp Arg Asn Leu Ala Glu Lys Ile Pro Glu Ile Gln Tyr  
340 345 350

Ser Ile Val Ser Asp Arg Val Ser Lys Val Thr Phe Ser Asn Leu Lys  
355 360 365

Ala Thr Arg Pro Arg Gly Lys Phe Thr Tyr Asp Ala Val Tyr Cys Cys  
370 375 380

Asn Glu Gln Ala Cys His His Arg Tyr Ala Glu Leu Tyr Val Ile Asp  
385 390 395 400

Val Asn Ile Asn Ile Ser Cys Glu Thr Asp Gly Tyr Leu Thr Lys Met  
405 410 415

Thr Cys Arg Trp Ser Pro Ser Thr Ile Gln Ser Leu Val Gly Ser Thr  
420 425 430

Val Gln Leu Arg Tyr His Arg Arg Ser Leu Tyr Cys Pro Asp Ser Pro  
435 440 445

Ser Ile His Pro Thr Ser Glu Pro Lys Asn Cys Val Leu Gln Arg Asp  
450 455 460

Gly Phe Tyr Glu Cys Val Phe Gln Pro Ile Phe Leu Leu Ser Gly Tyr  
465 470 475 480

Thr Met Trp Ile Arg Ile Asn His Ser Leu Gly Ser Leu Asp Ser Pro  
485 490 495

Pro Thr Cys Val Leu Pro Asp Ser Val Val Lys Pro Leu Pro Pro Ser  
500 505 510

Asn Val Lys Ala Glu Ile Thr Val Asn Thr Gly Leu Leu Lys Val Ser  
515 520 525

Trp Glu Lys Pro Val Phe Pro Glu Asn Asn Leu Gln Phe Gln Ile Arg  
530 535 540

Tyr Gly Leu Ser Gly Lys Glu Ile Glu Trp Lys Thr His Glu Val Phe  
545 550 555 560

Asp Ala Lys Ser Lys Ser Ala Ser Leu Leu Val Ser Asp Leu Cys Ala  
565 570 575

Val Tyr Val Val Gln Val Arg Cys Arg Arg Leu Asp Gly Leu Gly Tyr  
580 585 590

Trp Ser Asn Trp Ser Ser Pro Ala Tyr Thr Leu Val Met Asp Val Lys  
595 600 605

Val Pro Met Arg Gly Pro Glu Phe Trp Arg Lys Met Asp Gly Asp Val  
610 615 620

Thr Lys Lys Glu Arg Asn Val Thr Leu Leu Trp Lys Pro Leu Thr Lys  
625 630 635 640

Asn Asp Ser Leu Cys Ser Val Arg Arg Tyr Val Val Lys His Arg Thr  
645 650 655

Ala His Asn Gly Thr Trp Ser Glu Asp Val Gly Asn Arg Thr Asn Leu  
660 665 670

Thr Phe Leu Trp Thr Glu Pro Ala His Thr Val Thr Val Leu Ala Val  
675 680 685

Asn Ser Leu Gly Ala Ser Leu Val Asn Phe Asn Leu Thr Phe Ser Trp  
690 695 700

Pro Met Ser Lys Val Ser Ala Val Glu Ser Leu Ser Ala Tyr Pro Leu  
705 710 715 720

Ser Ser Ser Cys Val Ile Leu Ser Trp Thr Leu Ser Pro Asp Asp Tyr  
725 730 735

Ser Leu Leu Tyr Leu Val Ile Glu Trp Lys Ile Leu Asn Glu Asp Asp  
740 745 750

Gly Met Lys Trp Leu Arg Ile Pro Ser Asn Val Lys Lys Phe Tyr Ile  
755 760 765

His

<211> 771  
<212> PRT  
<213> Mus musculus

<400> 88

Asp Pro Ile Ser Pro Trp Lys Phe Lys Leu Phe Cys Gly Pro Pro Asn  
1 5 10 15

Thr Thr Asp Asp Ser Phe Leu Ser Pro Ala Gly Ala Pro Asn Asn Ala  
20 25 30

Ser Ala Leu Lys Gly Ala Ser Glu Ala Ile Val Glu Ala Lys Phe Asn  
35 40 45

Ser Ser Gly Ile Tyr Val Pro Glu Leu Ser Lys Thr Val Phe His Cys  
50 55 60

Cys Phe Gly Asn Glu Gln Gly Gln Asn Cys Ser Ala Leu Thr Asp Asn  
65 70 75 80

Thr Glu Gly Lys Thr Leu Ala Ser Val Val Lys Ala Ser Val Phe Arg  
85 90 95

Gln Leu Gly Val Asn Trp Asp Ile Glu Cys Trp Met Lys Gly Asp Leu  
100 105 110

Thr Leu Phe Ile Cys His Met Glu Pro Leu Pro Lys Asn Pro Phe Lys  
115 120 125

Asn Tyr Asp Ser Lys Val His Leu Leu Tyr Asp Leu Pro Glu Val Ile  
130 135 140

Asp Asp Ser Pro Leu Pro Pro Leu Lys Asp Ser Phe Gln Thr Val Gln  
145 150 155 160

Cys Asn Cys Ser Leu Arg Gly Cys Glu Cys His Val Pro Val Pro Arg  
165 170 175

Ala Lys Leu Asn Tyr Ala Leu Leu Met Tyr Leu Glu Ile Thr Ser Ala  
180 185 190

Gly Val Ser Phe Gln Ser Pro Leu Met Ser Leu Gln Pro Met Leu Val  
195 200 205

Val Lys Pro Asp Pro Pro Leu Gly Leu His Met Glu Val Thr Asp Asp  
210 215 220

Gly Asn Leu Lys Ile Ser Trp Asp Ser Gln Thr Met Ala Pro Phe Pro  
225 230 235 240

Leu Gln Tyr Gln Val Lys Tyr Leu Glu Asn Ser Thr Ile Val Arg Glu  
245 250 255

Ala Ala Glu Ile Val Ser Ala Thr Ser Leu Leu Val Asp Ser Val Leu  
260 265 270

Pro Gly Ser Ser Tyr Glu Val Gln Val Arg Ser Lys Arg Leu Asp Gly  
275 280 285

Ser Gly Val Trp Ser Asp Trp Ser Ser Pro Gln Val Phe Thr Thr Gln  
290 295 300

Asp Val Val Tyr Phe Pro Pro Lys Ile Leu Thr Ser Val Gly Ser Asn  
305 310 315 320

Ala Ser Phe His Cys Ile Tyr Lys Asn Glu Asn Gln Ile Ile Ser Ser  
325 330 335

Lys Gln Ile Val Trp Trp Arg Asn Leu Ala Glu Lys Ile Pro Glu Ile  
340 345 350

Gln Tyr Ser Ile Val Ser Asp Arg Val Ser Lys Val Thr Phe Ser Asn  
355 360 365

Leu Lys Ala Thr Arg Pro Arg Gly Lys Phe Thr Tyr Asp Ala Val Tyr  
370 375 380

Cys Cys Asn Glu Gln Ala Cys His His Arg Tyr Ala Glu Leu Tyr Val  
385 390 395 400

Ile Asp Val Asn Ile Asn Ile Ser Cys Glu Thr Asp Gly Tyr Leu Thr  
405 410 415

Lys Met Thr Cys Arg Trp Ser Pro Ser Thr Ile Gln Ser Leu Val Gly  
420 425 430

Ser Thr Val Gln Leu Arg Tyr His Arg Arg Ser Leu Tyr Cys Pro Asp  
 435 440 445

Ser Pro Ser Ile His Pro Thr Ser Glu Pro Lys Asn Cys Val Leu Gln  
 450 455 460

Arg Asp Gly Phe Tyr Glu Cys Val Phe Gln Pro Ile Phe Leu Leu Ser  
 465 470 475 480

Gly Tyr Thr Met Trp Ile Arg Ile Asn His Ser Leu Gly Ser Leu Asp  
 485 490 495

Ser Pro Pro Thr Cys Val Leu Pro Asp Ser Val Val Lys Pro Leu Pro  
 500 505 510

Pro Ser Asn Val Lys Ala Glu Ile Thr Val Asn Thr Gly Leu Leu Lys  
 515 520 525

Val Ser Trp Glu Lys Pro Val Phe Pro Glu Asn Asn Leu Gln Phe Gln  
 530 535 540

Ile Arg Tyr Gly Leu Ser Gly Lys Glu Ile Gln Trp Lys Thr His Glu  
 545 550 555 560

Val Phe Asp Ala Lys Ser Lys Ser Ala Ser Leu Leu Val Ser Asp Leu  
 565 570 575

Cys Ala Val Tyr Val Val Gln Val Arg Cys Arg Arg Leu Asp Gly Leu  
 580 585 590

Gly Tyr Trp Ser Asn Trp Ser Ser Pro Ala Tyr Thr Leu Val Met Asp  
 595 600 605

Val Lys Val Pro Met Arg Gly Pro Glu Phe Trp Arg Lys Met Asp Gly  
 610 615 620

Asp Val Thr Lys Lys Glu Arg Asn Val Thr Leu Leu Trp Lys Pro Leu  
 625 630 635 640

Thr Lys Asn Asp Ser Leu Cys Ser Val Arg Arg Tyr Val Val Lys His  
 645 650 655

Arg Thr Ala His Asn Gly Thr Trp Ser Glu Asp Val Gly Asn Arg Thr

660

665

670

Asn Leu Thr Phe Leu Trp Thr Glu Pro Ala His Thr Val Thr Val Leu  
675 680 685

Ala Val Asn Ser Leu Gly Ala Ser Leu Val Asn Phe Asn Leu Thr Phe  
690 695 700

Ser Trp Pro Met Ser Lys Val Ser Ala Val Glu Ser Leu Ser Ala Tyr  
705 710 715 720

Pro Leu Ser Ser Ser Cys Val Ile Leu Ser Trp Thr Leu Ser Pro Asp  
725 730 735

Asp Tyr Ser Leu Leu Tyr Leu Val Ile Glu Trp Lys Ile Leu Asn Glu  
740 745 750

Asp Asp Gly Met Lys Trp Leu Arg Ile Pro Ser Asn Val Lys Lys Phe  
755 760 765

Tyr Ile His  
770

<210> 89  
<211> 684  
<212> PRT  
<213> Mus musculus

<400> 89

Ser Val Val Lys Ala Ser Val Phe Arg Gln Leu Gly Val Asn Trp Asp  
1 5 10 15

Ile Glu Cys Trp Met Lys Gly Asp Leu Thr Leu Phe Ile Cys His Met  
20 25 30

Glu Pro Leu Pro Lys Asn Pro Phe Lys Asn Tyr Asp Ser Lys Val His  
35 40 45

Leu Leu Tyr Asp Leu Pro Glu Val Ile Asp Asp Ser Pro Leu Pro Pro  
50 55 60

Leu Lys Asp Ser Phe Gln Thr Val Gln Cys Asn Cys Ser Leu Arg Gly  
65 70 75 80

Cys Glu Cys His Val Pro Val Pro Arg Ala Lys Leu Asn Tyr Ala Leu  
85 90 95

Leu Met Tyr Leu Glu Ile Thr Ser Ala Gly Val Ser Phe Gln Ser Pro  
100 105 110

Leu Met Ser Leu Gln Pro Met Leu Val Val Lys Pro Asp Pro Pro Leu  
115 120 125

Gly Leu His Met Glu Val Thr Asp Asp Gly Asn Leu Lys Ile Ser Trp  
130 135 140

Asp Ser Gln Thr Met Ala Pro Phe Pro Leu Gln Tyr Gln Val Lys Tyr  
145 150 155 160

Leu Glu Asn Ser Thr Ile Val Arg Glu Ala Ala Glu Ile Val Ser Ala  
165 170 175

Thr Ser Leu Leu Val Asp Ser Val Leu Pro Gly Ser Ser Tyr Glu Val  
180 185 190

Gln Val Arg Ser Lys Arg Leu Asp Gly Ser Gly Val Trp Ser Asp Trp  
195 200 205

Ser Ser Pro Gln Val Phe Thr Thr Gln Asp Val Val Tyr Phe Pro Pro  
210 215 220

Lys Ile Leu Thr Ser Val Gly Ser Asn Ala Ser Phe His Cys Ile Tyr  
225 230 235 240

Lys Asn Glu Asn Gln Ile Ile Ser Ser Lys Gln Ile Val Trp Trp Arg  
245 250 255

Asn Leu Ala Glu Lys Ile Pro Glu Ile Gln Tyr Ser Ile Val Ser Asp  
260 265 270

Arg Val Ser Lys Val Thr Phe Ser Asn Leu Lys Ala Thr Arg Pro Arg  
275 280 285

Gly Lys Phe Thr Tyr Asp Ala Val Tyr Cys Cys Asn Glu Gln Ala Cys  
290 295 300

His His Arg Tyr Ala Glu Leu Tyr Val Ile Asp Val Asn Ile Asn Ile  
305 310 315 320

Ser Cys Glu Thr Asp Gly Tyr Leu Thr Lys Met Thr Cys Arg Trp Ser  
325 330 335

Pro Ser Thr Ile Gln Ser Leu Val Gly Ser Thr Val Gln Leu Arg Tyr  
340 345 350

His Arg Arg Ser Leu Tyr Cys Pro Asp Ser Pro Ser Ile His Pro Thr  
355 360 365

Ser Glu Pro Lys Asn Cys Val Leu Gln Arg Asp Gly Phe Tyr Glu Cys  
370 375 380

Val Phe Gln Pro Ile Phe Leu Leu Ser Gly Tyr Thr Met Trp Ile Arg  
385 390 395 400

Ile Asn His Ser Leu Gly Ser Leu Asp Ser Pro Pro Thr Cys Val Leu  
405 410 415

Pro Asp Ser Val Val Lys Pro Leu Pro Pro Ser Asn Val Lys Ala Glu  
420 425 430

Ile Thr Val Asn Thr Gly Leu Leu Lys Val Ser Trp Glu Lys Pro Val  
435 440 445

Phe Pro Glu Asn Asn Leu Gln Phe Gln Ile Arg Tyr Gly Leu Ser Gly  
450 455 460

Lys Glu Ile Gln Trp Lys Thr His Glu Val Phe Asp Ala Lys Ser Lys  
465 470 475 480

Ser Ala Ser Leu Leu Val Ser Asp Leu Cys Ala Val Tyr Val Val Gln  
485 490 495

Val Arg Cys Arg Arg Leu Asp Gly Leu Gly Tyr Trp Ser Asn Trp Ser  
500 505 510

Ser Pro Ala Tyr Thr Leu Val Met Asp Val Lys Val Pro Met Arg Gly  
515 520 525

Pro Glu Phe Trp Arg Lys Met Asp Gly Asp Val Thr Lys Lys Glu Arg



530

535

540

Asn Val Thr Leu Leu Trp Lys Pro Leu Thr Lys Asn Asp Ser Leu Cys  
 545 550 555 560

Ser Val Arg Arg Tyr Val Val Lys His Arg Thr Ala His Asn Gly Thr  
 565 570 575

Trp Ser Glu Asp Val Gly Asn Arg Thr Asn Leu Thr Phe Leu Trp Thr  
 580 585 590

Glu Pro Ala His Thr Val Thr Val Leu Ala Val Asn Ser Leu Gly Ala  
 595 600 605

Ser Leu Val Asn Phe Asn Leu Thr Phe Ser Trp Pro Met Ser Lys Val  
 610 615 620

Ser Ala Val Glu Ser Leu Ser Ala Tyr Pro Leu Ser Ser Ser Cys Val  
 625 630 635 640

Ile Leu Ser Trp Thr Leu Ser Pro Asp Asp Tyr Ser Leu Leu Tyr Leu  
 645 650 655

Val Ile Glu Trp Lys Ile Leu Asn Glu Asp Asp Gly Met Lys Trp Leu  
 660 665 670

Arg Ile Pro Ser Asn Val Lys Lys Phe Tyr Ile His  
 675 680

<210> 90

<211> 64

<212> PRT

<213> Mus musculus

<400> 90

Met Ser Lys Val Ser Ala Val Glu Ser Leu Ser Ala Tyr Pro Leu Ser  
 1 5 10 15

Ser Ser Cys Val Ile Leu Ser Trp Thr Leu Ser Pro Asp Asp Tyr Ser  
 20 25 30

Leu Leu Tyr Leu Val Ile Glu Trp Lys Ile Leu Asn Glu Asp Asp Gly  
 35 40 45

Met Lys Trp Leu Arg Ile Pro Ser Asn Val Lys Lys Phe Tyr Ile His  
50 55 60

<210> 91  
<211> 9  
<212> PRT  
<213> Mus musculus

<400> 91

Gly Met Cys Thr Val Leu Phe Met Asp  
1 5

<210> 92  
<211> 227  
<212> PRT  
<213> Mus musculus

<400> 92

Asp Arg Trp Gly Ser Tyr Ala Glu Leu Tyr Val Ile Asp Val Asn Ile  
1 5 10 15

Asn Ile Ser Cys Glu Thr Asp Gly Tyr Leu Thr Lys Met Thr Cys Arg  
20 25 30

Trp Ser Pro Ser Thr Ile Gln Ser Leu Val Gly Ser Thr Val Gln Leu  
35 40 45

Arg Tyr His Arg Arg Ser Leu Tyr Cys Pro Asp Ser Pro Ser Ile His  
50 55 60

Pro Thr Ser Glu Pro Lys Asn Cys Val Leu Gln Arg Asp Gly Phe Tyr  
65 70 75 80

Glu Cys Val Phe Gln Pro Ile Phe Leu Leu Ser Gly Tyr Thr Met Trp  
85 90 95

Ile Arg Ile Asn His Ser Leu Gly Ser Leu Asp Ser Pro Pro Thr Cys  
100 105 110

Val Leu Pro Asp Ser Val Val Lys Pro Leu Pro Pro Ser Asn Val Lys  
115 120 125

Ala Glu Ile Thr Val Asn Thr Gly Leu Leu Lys Val Ser Trp Glu Lys  
130 135 140

Pro Val Phe Pro Glu Asn Asn Leu Gln Phe Gln Ile Arg Tyr Gly Leu  
145 150 155 160

Ser Gly Lys Glu Ile Gln Trp Lys Thr His Glu Val Phe Asp Ala Lys  
165 170 175

Ser Lys Ser Ala Ser Leu Leu Val Ser Asp Leu Cys Ala Val Tyr Val  
180 185 190

Val Gln Val Arg Cys Arg Arg Leu Asp Gly Leu Gly Tyr Trp Ser Asn  
195 200 205

Trp Ser Ser Pro Ala Tyr Thr Leu Val Met Asp Val Lys Val Pro Met  
210 215 220

Arg Gly Pro  
225

<210> 93  
<211> 227  
<212> PRT  
<213> Mus musculus

<400> 93

Asp Arg Trp Gly Ser Tyr Ala Glu Leu Tyr Val Ile Asp Val Asn Ile  
1 5 10 15

Asn Ile Ser Cys Glu Thr Asp Gly Tyr Leu Thr Lys Met Thr Cys Arg  
20 25 30

Trp Ser Pro Ser Thr Ile Gln Ser Leu Val Gly Ser Thr Val Gln Leu  
35 40 45

Arg Tyr His Arg Arg Ser Leu Tyr Cys Pro Asp Ser Pro Ser Ile His  
50 55 60

Pro Thr Ser Glu Pro Lys Asn Cys Val Leu Gln Arg Asp Gly Phe Tyr  
65 70 75 80

Glu Cys Val Phe Gln Pro Ile Phe Leu Leu Ser Gly Tyr Thr Met Trp  
85 90 95

Ile Arg Ile Asn His Ser Leu Gly Ser Leu Asp Ser Pro Pro Thr Cys  
100 105 110

Val Leu Pro Asp Ser Val Val Lys Pro Leu Pro Pro Ser Asn Val Lys  
115 120 125

Ala Glu Ile Thr Val Asn Thr Gly Leu Leu Lys Val Ser Trp Glu Lys  
130 135 140

Pro Val Phe Pro Glu Asn Asn Leu Gln Phe Gln Ile Arg Tyr Gly Leu  
145 150 155 160

Ser Gly Lys Glu Ile Gln Trp Lys Thr His Glu Val Phe Asp Ala Lys  
165 170 175

Ser Lys Ser Ala Ser Leu Leu Val Ser Asp Leu Cys Ala Val Tyr Val  
180 185 190

Val Gln Val Arg Cys Arg Arg Leu Asp Gly Leu Gly Tyr Trp Ser Asn  
195 200 205

Trp Ser Ser Pro Ala Tyr Thr Leu Val Met Asp Val Lys Val Pro Met  
210 215 220

Arg Gly Pro  
225

<210> 94  
<211> 529  
<212> PRT  
<213> Mus musculus

<400> 94

Asp Arg Trp Gly Ser Ser Val Phe Arg Gln Leu Gly Val Asn Trp Asp  
1 5 10 15

Ile Glu Cys Trp Met Lys Gly Asp Leu Thr Leu Phe Ile Cys His Met  
20 25 30

Glu Pro Leu Pro Lys Asn Pro Phe Lys Asn Tyr Asp Ser Lys Val His  
35 40 45

Leu Leu Tyr Asp Leu Pro Glu Val Ile Asp Asp Ser Pro Leu Pro Pro  
50 55 60

Leu Lys Asp Ser Phe Gln Thr Val Gln Cys Asn Cys Ser Leu Arg Gly  
65 70 75 80

Cys Glu Cys His Val Pro Val Pro Arg Ala Lys Leu Asn Tyr Ala Leu  
85 90 95

Leu Met Tyr Leu Glu Ile Thr Ser Ala Gly Val Ser Phe Gln Ser Pro  
100 105 110

Leu Met Ser Leu Gln Pro Met Leu Val Val Lys Pro Asp Pro Pro Leu  
115 120 125

Gly Leu His Met Glu Val Thr Asp Asp Gly Asn Leu Lys Ile Ser Trp  
130 135 140

Asp Ser Gln Thr Met Ala Pro Phe Pro Leu Gln Tyr Gln Val Lys Tyr  
145 150 155 160

Leu Glu Asn Ser Thr Ile Val Arg Glu Ala Ala Glu Ile Val Ser Ala  
165 170 175

Thr Ser Leu Leu Val Asp Ser Val Leu Pro Gly Ser Ser Tyr Glu Val  
180 185 190

Gln Val Arg Ser Lys Arg Leu Asp Gly Ser Gly Val Trp Ser Asp Trp  
195 200 205

Ser Ser Pro Gln Val Phe Thr Thr Gln Asp Val Val Tyr Phe Pro Pro  
210 215 220

Lys Ile Leu Thr Ser Val Gly Ser Asn Ala Ser Phe His Cys Ile Tyr  
225 230 235 240

Lys Asn Glu Asn Gln Ile Ile Ser Ser Lys Gln Ile Val Trp Trp Arg  
245 250 255

Asn Leu Ala Glu Lys Ile Pro Glu Ile Gln Tyr Ser Ile Val Ser Asp  
260 265 270

Arg Val Ser Lys Val Thr Phe Ser Asn Leu Lys Ala Thr Arg Pro Arg  
275 280 285

Gly Lys Phe Thr Tyr Asp Ala Val Tyr Cys Cys Asn Glu Gln Ala Cys  
290 295 300

His His Arg Tyr Ala Glu Leu Tyr Val Ile Asp Val Asn Ile Asn Ile  
305 310 315 320

Ser Cys Glu Thr Asp Gly Tyr Leu Thr Lys Met Thr Cys Arg Trp Ser  
325 330 335

Pro Ser Thr Ile Gln Ser Leu Val Gly Ser Thr Val Gln Leu Arg Tyr  
340 345 350

His Arg Arg Ser Leu Tyr Cys Pro Asp Ser Pro Ser Ile His Pro Thr  
355 360 365

Ser Glu Pro Lys Asn Cys Val Leu Gln Arg Asp Gly Phe Tyr Glu Cys  
370 375 380

Val Phe Gln Pro Ile Phe Leu Leu Ser Gly Tyr Thr Met Trp Ile Arg  
385 390 395 400

Ile Asn His Ser Leu Gly Ser Leu Asp Ser Pro Pro Thr Cys Val Leu  
405 410 415

Pro Asp Ser Val Val Lys Pro Leu Pro Pro Ser Asn Val Lys Ala Glu  
420 425 430

Ile Thr Val Asn Thr Gly Leu Leu Lys Val Ser Trp Glu Lys Pro Val  
435 440 445

Phe Pro Glu Asn Asn Leu Gln Phe Gln Ile Arg Tyr Gly Leu Ser Gly  
450 455 460

Lys Glu Ile Gln Trp Lys Thr His Glu Val Phe Asp Ala Lys Ser Lys  
465 470 475 480

Ser Ala Ser Leu Leu Val Ser Asp Leu Cys Ala Val Tyr Val Val Gln  
485 490 495

Val Arg Cys Arg Arg Leu Asp Gly Leu Gly Tyr Trp Ser Asn Trp Ser  
500 505 510

Ser Pro Ala Tyr Thr Leu Val Met Asp Val Lys Val Pro Met Arg Gly  
515 520 525

Pro

<210> 95  
<211> 529  
<212> PRT  
<213> Mus musculus

<400> 95

Asp Arg Trp Gly Ser Ser Val Phe Arg Gln Leu Gly Val Asn Trp Asp  
1 5 10 15

Ile Glu Cys Trp Met Lys Gly Asp Leu Thr Leu Phe Ile Cys His Met  
20 25 30

Glu Pro Leu Pro Lys Asn Pro Phe Lys Asn Tyr Asp Ser Lys Val His  
35 40 45

Leu Leu Tyr Asp Leu Pro Glu Val Ile Asp Asp Ser Pro Leu Pro Pro  
50 55 60

Leu Lys Asp Ser Phe Gln Thr Val Gln Cys Asn Cys Ser Leu Arg Gly  
65 70 75 80

Cys Glu Cys His Val Pro Val Pro Arg Ala Lys Leu Asn Tyr Ala Leu  
85 90 95

Leu Met Tyr Leu Glu Ile Thr Ser Ala Gly Val Ser Phe Gln Ser Pro  
100 105 110

Leu Met Ser Leu Gln Pro Met Leu Val Val Lys Pro Asp Pro Pro Leu  
115 120 125

Gly Leu His Met Glu Val Thr Asp Asp Gly Asn Leu Lys Ile Ser Trp  
130 135 140

Asp Ser Gln Thr Met Ala Pro Phe Pro Leu Gln Tyr Gln Val Lys Tyr  
145 150 155 160

Leu Glu Asn Ser Thr Ile Val Arg Glu Ala Ala Glu Ile Val Ser Ala  
165 170 175

Thr Ser Leu Leu Val Asp Ser Val Leu Pro Gly Ser Ser Tyr Glu Val  
180 185 190

Gln Val Arg Ser Lys Arg Leu Asp Gly Ser Gly Val Trp Ser Asp Trp  
195 200 205

Ser Ser Pro Gln Val Phe Thr Thr Gln Asp Val Val Tyr Phe Pro Pro  
210 215 220

Lys Ile Leu Thr Ser Val Gly Ser Asn Ala Ser Phe His Cys Ile Tyr  
225 230 235 240

Lys Asn Glu Asn Gln Ile Ile Ser Ser Lys Gln Ile Val Trp Trp Arg  
245 250 255

Asn Leu Ala Glu Lys Ile Pro Glu Ile Gln Tyr Ser Ile Val Ser Asp  
260 265 270

Arg Val Ser Lys Val Thr Phe Ser Asn Leu Lys Ala Thr Arg Pro Arg  
275 280 285

Gly Lys Phe Thr Tyr Asp Ala Val Tyr Cys Cys Asn Glu Gln Ala Cys  
290 295 300

His His Arg Tyr Ala Glu Leu Tyr Val Ile Asp Val Asn Ile Asn Ile  
305 310 315 320

Ser Cys Glu Thr Asp Gly Tyr Leu Thr Lys Met Thr Cys Arg Trp Ser  
325 330 335

Pro Ser Thr Ile Gln Ser Leu Val Gly Ser Thr Val Gln Leu Arg Tyr  
340 345 350

His Arg Arg Ser Leu Tyr Cys Pro Asp Ser Pro Ser Ile His Pro Thr  
355 360 365

Ser Glu Pro Lys Asn Cys Val Leu Gln Arg Asp Gly Phe Tyr Glu Cys  
370 375 380

Val Phe Gln Pro Ile Phe Leu Leu Ser Gly Tyr Thr Met Trp Ile Arg  
385 390 395 400



Ile Asn His Ser Leu Gly Ser Leu Asp Ser Pro Pro Thr Cys Val Leu  
405 410 415

Pro Asp Ser Val Val Lys Pro Leu Pro Pro Ser Asn Val Lys Ala Glu  
420 425 430

Ile Thr Val Asn Thr Gly Leu Leu Lys Val Ser Trp Glu Lys Pro Val  
435 440 445

Phe Pro Glu Asn Asn Leu Gln Phe Gln Ile Arg Tyr Gly Leu Ser Gly  
450 455 460

Lys Glu Ile Gln Trp Lys Thr His Glu Val Phe Asp Ala Lys Ser Lys  
465 470 475 480

Ser Ala Ser Leu Leu Val Ser Asp Leu Cys Ala Val Tyr Val Val Gln  
485 490 495

Val Arg Cys Arg Arg Leu Asp Gly Leu Gly Tyr Trp Ser Asn Trp Ser  
500 505 510

Ser Pro Ala Tyr Thr Leu Val Met Asp Val Lys Val Pro Met Arg Gly  
515 520 525

Pro

<210> 96  
<211> 214  
<212> PRT  
<213> Mus musculus

<400> 96

Asp Arg Trp Gly Ser Leu Gly Val Asn Trp Asp Ile Glu Cys Trp Met  
1 5 10 15

Lys Gly Asp Leu Thr Leu Phe Ile Cys His Met Glu Pro Leu Pro Lys  
20 25 30

Asn Pro Phe Lys Asn Tyr Asp Ser Lys Val His Leu Leu Tyr Asp Leu  
35 40 45

Pro Glu Val Ile Asp Asp Ser Pro Leu Pro Pro Leu Lys Asp Ser Phe

50

55

60

Gln Thr Val Gln Cys Asn Cys Ser Leu Arg Gly Cys Glu Cys His Val  
65 70 75 80

Pro Val Pro Arg Ala Lys Leu Asn Tyr Ala Leu Leu Met Tyr Leu Glu  
85 90 95

Ile Thr Ser Ala Gly Val Ser Phe Gln Ser Pro Leu Met Ser Leu Gln  
100 105 110

Pro Met Leu Val Val Lys Pro Asp Pro Pro Leu Gly Leu His Met Glu  
115 120 125

Val Thr Asp Asp Gly Asn Leu Lys Ile Ser Trp Asp Ser Gln Thr Met  
130 135 140

Ala Pro Phe Pro Leu Gln Tyr Gln Val Lys Tyr Leu Glu Asn Ser Thr  
145 150 155 160

Ile Val Arg Glu Ala Ala Glu Ile Val Ser Ala Thr Ser Leu Leu Val  
165 170 175

Asp Ser Val Leu Pro Gly Ser Ser Tyr Glu Val Gln Val Arg Ser Lys  
180 185 190

Arg Leu Asp Gly Ser Gly Val Trp Ser Asp Trp Ser Ser Pro Gln Val  
195 200 205

Phe Thr Thr Gln Asp Val  
210

<210> 97  
<211> 214  
<212> PRT  
<213> Mus musculus

<400> 97

Asp Arg Trp Gly Ser Leu Gly Val Asn Trp Asp Ile Glu Cys Trp Met  
1 5 10 15

Lys Gly Asp Leu Thr Leu Phe Ile Cys His Met Glu Pro Leu Pro Lys  
20 25 30

Asn Pro Phe Lys Asn Tyr Asp Ser Lys Val His Leu Leu Tyr Asp Leu  
35 40 45

Pro Glu Val Ile Asp Asp Ser Pro Leu Pro Pro Leu Lys Asp Ser Phe  
50 55 60

Gln Thr Val Gln Cys Asn Cys Ser Leu Arg Gly Cys Glu Cys His Val  
65 70 75 80

Pro Val Pro Arg Ala Lys Leu Asn Tyr Ala Leu Leu Met Tyr Leu Glu  
85 90 95

Ile Thr Ser Ala Gly Val Ser Phe Gln Ser Pro Leu Met Ser Leu Gln  
100 105 110

Pro Met Leu Val Val Lys Pro Asp Pro Pro Leu Gly Leu His Met Glu  
115 120 125

Val Thr Asp Asp Gly Asn Leu Lys Ile Ser Trp Asp Ser Gln Thr Met  
130 135 140

Ala Pro Phe Pro Leu Gln Tyr Gln Val Lys Tyr Leu Glu Asn Ser Thr  
145 150 155 160

Ile Val Arg Glu Ala Ala Glu Ile Val Ser Ala Thr Ser Leu Leu Val  
165 170 175

Asp Ser Val Leu Pro Gly Ser Ser Tyr Glu Val Gln Val Arg Ser Lys  
180 185 190

Arg Leu Asp Gly Ser Gly Val Trp Ser Asp Trp Ser Ser Pro Gln Val  
195 200 205

Phe Thr Thr Gln Asp Val  
210

C2  
cont.